RAISING ACADEMIC ACHIEVEMENT

A Study of 20 Successful Programs

Sonia Jurich & Steve Estes

American Youth Policy Forum

ABOUT THE PUBLISHER

The **American Youth Policy Forum** (AYPF) is a non-partisan, non-profit professional development organization based in Washington, DC. AYPF provides varied learning opportunities for individuals working on policy issues affecting youth at the local, state and national levels. Participants in our learning activities include: Congressional staff, policymakers and Executive Branch aides, officers of professional and national associations, Washington-based state office staff; researchers and evaluators, and education and public affairs media.

Our goal is to enable policymakers and their aides to be more effective in their professional duties and of greater service—to Congress, the Administration, state legislatures, governors and national organizations—in the development, enactment, and implementation of sound policies affecting our nation's young people. We believe that knowing more about youth issues—both intellectually and experientially—will help our participants formulate better policies and do their jobs more effectively. AYPF does not lobby or take positions on pending legislation. We work to develop better communication, greater understanding and enhanced trust among these professionals, and to create a climate that will result in constructive action. Each year AYPF conducts 35 to 45 learning events (forums, discussion groups and study tours) and develops policy reports disseminated nationally. For more information about these activities and other publications, contact our web site at www.aypf.org.

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Overview

School accountability, tougher standards and higher test scores have been buzzwords in recent political campaigns and school superintendents' speeches. Opinion polls show that the quality of education is a major concern among the public, and measures have been proposed at all levels of government to improve the academic achievement of our youth. The federal government has established national education goals; states are developing report cards to increase public scrutiny of their schools; and localities are trying to revamp their educational systems to improve academic outcomes. The American Youth Policy Forum (AYPF) has been at the forefront of efforts to identify effective youth initiatives in the areas of academic achievement, preparation for careers, youth development, and service-learning. With this new publication, AYPF offers 20 models of excellence in raising academic achievement to guide policymakers, educators and youth development practitioners in their work toward a better future for American youth.

These 20 examples of excellence were drawn from the 95 youth initiatives included in AYPF's two previous publications on successful youth programs: **Some Things *DO* Make a Difference for Youth** (1997) and ***MORE* Things That *DO* Make a Difference for Youth** (1999). Almost all the programs included in this list serve youth who are considered at high risk for academic failure, including youth from low-income and minority backgrounds, immigrants with low English proficiency, and youth living in public housing projects and in inner-city areas. Despite these challenges, evaluations conducted on these programs show evidence of their success on multiple measures of academic achievement, such as test scores, high school graduation rates, and college enrollment and retention.

This report is divided into two parts. Part One is an Introduction, providing the historical context of the recent concerns about academic achievement, the criteria used to select these programs, and an analysis of the features and strategies that the programs employ to help students achieve. Part Two includes the summaries of program evaluations. The summaries follow an eight-section outline composed of: overview, description of the population served by the program, evidence of effectiveness, key program components, contributing factors (factors highlighted by the evaluators as contributing to program success), study methodology, geographic area (program location) and contact information.

Our expectation is that this publication will contribute to the knowledge base of what works to improve academic achievement for young people. We also hope that it persuades researchers to continue to search for features that distinguish successful academic programs. Finally, the evidence provided in the evaluation summaries printed here should inspire and encourage more schools and youth programs to evaluate the results of their work. Not only does such evidence appeal to funders of youth initiatives, it ensures that programs are, in fact, *making a difference for youth.*

Introduction

The Historical Context

◆ The Storm

After a long period of growth and dominance of the international market, the American economy seemed to falter in the late 1970s and early 1980s. The country's economic woes, including a lingering recession and increasing trade deficit, were partially attributed to the lack of a competent, well-trained workforce. A wave of criticism swept over our schools. A presidential task force was assembled in 1983 to analyze the status of public education in the United States. The task force report, *A Nation at Risk: The Imperative for Educational Reform*, ignited a debate among politicians, educators, and the public at large. The report claimed that:

> *Our Nation is at risk . . . . We report to the American people that while we can take justifiable pride in what our schools and colleges have historically accomplished and contributed to the United States and the well-being of its people, the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people.*[1]

School data was not reassuring. Between the 1960s and 1980s, scores on the Scholastic Aptitude Test (SAT) had declined and proficiency levels in reading, mathematics and science had remained stagnant or declined (particularly at the high school level). Course taking in mathematics and science had not increased for two decades. In 1982, less than 15% of high school graduates had earned more than two mathematics and two science credits.[2] Yet, scientific discoveries and technological developments were changing the world's economy and the demands imposed on American society.[3] While occupations requiring less than a high school diploma had declined from 40% to 15% of all available jobs between 1967 and 1987,[4] estimates of job growth pointed to fields dependent on more intensive training, particularly those connected to mathematics and science.[5] As *A Nation at Risk* argued, to remain competitive, the country required a highly educated workforce.[6] The United States also needed an educated citizenship to maintain and expand its democratic ideals in a gradually shrinking world.[7] Educational outcomes that had been adequate for the industrial era were no longer satisfactory.

Throughout the next decade, the Federal government passed a series of laws that encouraged or required measures to increase academic achievement for all students and improve their chances to pursue a college education or a fulfilling career. For instance:

- *Goals 2000: Educate America Act*, signed into law in 1994, established national education goals for all students and provides grants to states (and through them, to communities) to revamp failing educational systems.

- *Improving America's Schools Act of 1994*, which reauthorized the Elementary and Secondary Education Act (ESEA), encouraged comprehensive efforts by schools, communities and states to reach higher standards for all children.

- *The School-to-Work Opportunities Act*, also enacted in 1994, offered grants to all of the states for the planning and implementation of educational systems that improved the transition from school to work and postsecondary education for all students.

- The 1994 amendment of the *Carl D. Perkins Vocational and Applied Technology Education Act* provided funds to improve vocational education and establish partnerships between schools and postsecondary institutions geared toward career paths that include two years of postsecondary education and offer an Associate's degree.

- The *Higher Education Act*, reauthorized in 1998, focused on expanding access to higher education for all students through a system of low interest loans, grants and support programs, including TRIO and GEAR UP.[8]

By 1997, 46 states had also enacted legislation requiring high standards for all students and more accountability from public schools. New tests have been designed to reflect these concerns and, in some states, schools and entire school districts that do not reach established benchmarks are placed on probation and may lose their administrative autonomy.[9]

The Aftermath

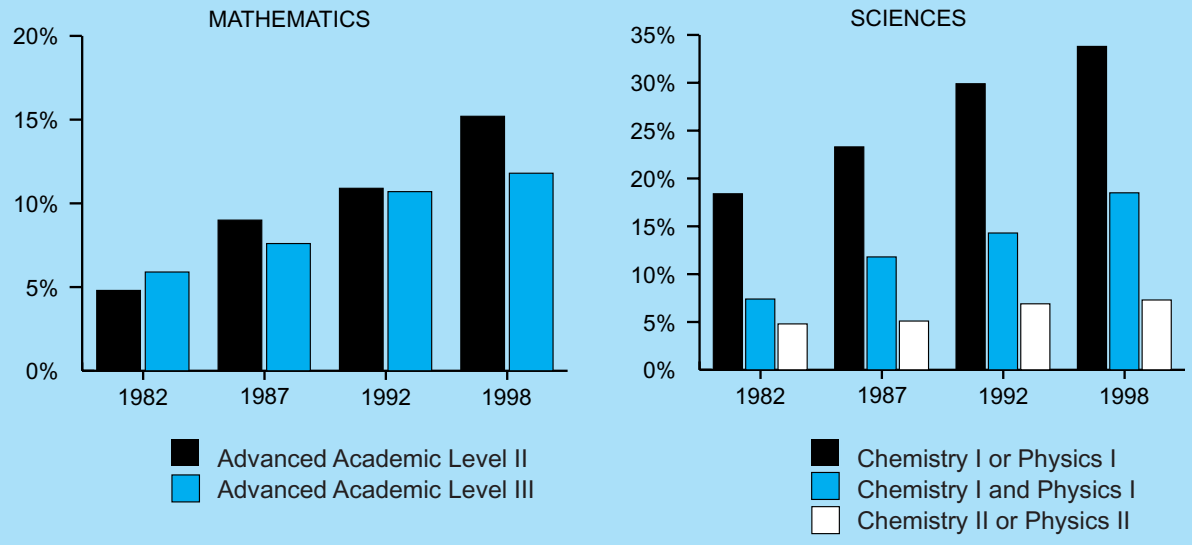
The overall effort to improve educational outcomes seems to have attained at least partial success. In the past decade:[10]

More high school students are completing advanced mathematics and science courses - As Figure 1 shows, in 1982, 5% of high school graduates completed mathematics courses at the advanced academic level II, and 6% completed courses at level III; in 1998, these rates were 15% and 12% respectively (courses at these levels include trigonometry, pre-calculus and calculus). Similarly, while in 1982 less than 20% of the students completed Chemistry I or Physics I, in 1998 over 30% had completed these courses. The rates for completion of both courses were 7% in 1982 and 18% in 1998, and for completion of Chemistry II or Physics II was 5% and 7% respectively.

- *High school graduates earned more credits* - In 1982, high school graduates completed on average 22 credits at graduation, compared with an average of 25 credits in 1998.

- *High school students have improved their performance on standardized math and science tests* – As Figure 2 shows, in 1982, half of the 17 year-olds taking the National Assessment of Educational Progress (NAEP) mathematics test scored at or

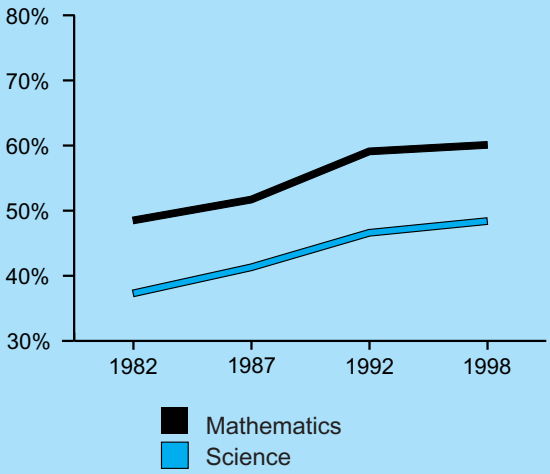
Figure 1: Percentage of high school graduates completing advanced Mathematics and science courses



Source: National Center for Education Statistics, The Conditions of Education 2000, p.157.

above 300. On the NAEP science test, 40% scored at or above 300. In 1996, the percentages were 60% for mathematics and 50% in science.

Figure 2: Percentage of 17-year-old students scoring at or above 300 on the NAEP testsurses



Source: National Center for Education Statistics, The Conditions of Education 2000, p.135

- *More youth are graduating from high school and college* - from 1971 to 1999, the percentage of 25 to 29 year-olds who completed high school rose from 78% to 88%, and those completing a bachelor's degree or higher increased from 22% to 32%.

- *Fewer youth have dropped out of school* - from 1983 to 1997, the percentage of 16 to 24 year-olds who were not enrolled in school and had not completed high school or the equivalent declined from 14% to 11%.

Despite relative success, much work remains to be done. Improvement is slow, particularly in the areas of the sciences and mathematics, essential subjects in this technology-dominated world. Many other indicators remain of concern. For instance, there is still a significant achievement gap between white and minority students. More than 30% of 16- to 24-year-old Hispanics are not in school or have not completed high school. While reading performance of 8th graders improved in the past decade, the performance of 4th and 12th graders remained the same. In the Third International Mathematics and Science Study (TIMSS) of 1995, American 4th grade students scored above international average, but 8th and 12th graders scored below the average on all tests.[11]

School reformers and youth program directors throughout the country are working hard to increase academic achievement among America's young people. They have developed programs that have proven successful in increasing student performance on standardized tests, keeping and supporting students in school, providing them with a solid foundation for a postsecondary education and/or a successful career, and helping them to become better workers and citizens. Their work deserves to be known, appreciated and replicated when possible.

Defining Successful Programs

- **To Be or Not to Be (Inclusion Criteria)**

To refute the unfounded assumption that nothing works in programming for youth, the American Youth Policy Forum (AYPF) published in 1997 *Some Things DO Make a Difference for Youth: A Compendium of Evaluations of Youth Programs and Practices*. The compendium included summaries of evaluations of youth programs that were found to have a positive influence on their young participants' lives. Policymakers, practitioners and educators received the volume with such enthusiasm that in 1999 AYPF published a second compendium — *MORE Things that DO Make a Difference for Youth*. The compendia described 95 initiatives, including school reforms, school-to-work, employment and training, service-learning, English language development, after school programs, and others.

In preparation for the two AYPF compendia, hundreds of evaluations were collected with the use of multiple search strategies that included: (1) national databases, such as the Educational Resources Information Center (ERIC), Sociological Abstracts and the National Criminal Justice Reference Service (NCJRS); (2) the Internet; (3) phone calls, e-mail and faxes to program coordinators, policymakers, funding officers and researchers; (4) distribution of flyers requesting evaluations during forums, conferences and similar events; and (5) a request for evaluations posted on our home page (www.aypf.org).

The evaluations collected were then reviewed according to three criteria:[12]

- *Program characteristics:* programs and practices had to target school-aged children and older youth and aim for long-term influence on participants

- *Data produced*: data had to demonstrate program effectiveness to improve life prospects of participants

- *Quality of evaluation*: evaluation sample, design and methodology had to follow accepted research standards

The evaluations that met those criteria were summarized and evaluators and program staff reviewed the summaries for accuracy. In addition, external reviewers read each of the summaries, asked questions, made comments, and assessed once more the overall quality of the documents. The two compendia include 133 evaluations of 95 youth programs.

To be included in the current publication, the evaluations were submitted to a second selection process with three added criteria:

1. *Quantitative measures of effectiveness*: programs had to present quantitative measures of students' academic performance; evaluations that had only qualitative measures, such as self-esteem and satisfaction with the program, were not included.

2. *Study methodology*: the evaluations had to use a systematic process of comparison, such as pre- and post-test comparisons, comparisons with baseline data, and matched comparisons or control groups.

3. *Academic Success*: programs had to show positive changes in measures of academic performance, as discussed below.

- **Defining "Success"**

In a publication about successful programs, the most important selection criteria is related to program results. Programs in this report had to show success in improving the academic achievement of their participants, which does not mean that they had to show positive changes in all indicators. The overall program result, rather than each of its measures, was the guideline for inclusion under the successful label. The term success is defined in relationship to what the students would probably obtain if they had not attended the program (measured through comparison against a similar group of students or against baseline data). Therefore, the reader will notice that often success is as small as a grade level change in the reading score. Other times, success means, for example, that students in a program are three times more likely to graduate than students who were not in the program.

There are many methods to measure academic achievement. This report follows a conservative approach that focuses on attendance and dropout rates, grades, credits earned, standardized test scores, high school graduation, and college admissions and completion. We sought evaluations that had multiple measures of impact to avoid an over-reliance on one measure such as grades or test scores. We realize that grades may not be the best measure of student knowledge and standardized tests can be culturally biased. However, we accept these imperfect indicators because they are the means by which states evaluate student and school achievement, college admissions committees judge student readiness, and prospective employers assess applicants' potential for job success. The vignettes below highlight the findings of the program evaluations summarized in this report. Full descriptions of findings are found in the summaries.

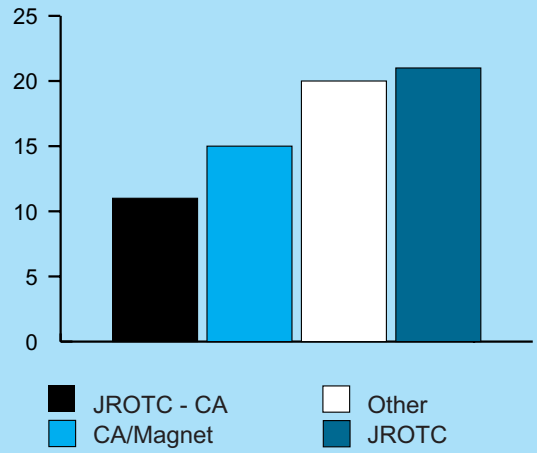
- *Attendance and Dropout Rates*

Retention in the program is the first prerequisite for success. Before students can do well academically, they need to be motivated to come to the program and participate. Reinforcing this common sense observation, the evaluation of *Sponsor-a-Scholar* showed a strong correlation between the rate of absenteeism in 9th grade and future academic performance for both program and non-program students. As expected, the more a student was involved in the program, the higher his or her chances of attaining the proposed goals. *Project ABACUS* serves New York City students with low English proficiency. The average school attendance rate in the program was 96%, compared to 87% for students in the same schools who were not involved with the program. At the *Junior ROTC Career Academies (JROTC-CA)*, 77% of the students were Hispanic, the student group with the highest dropout rate in the country.[13] *JROTC-CA* had an 11% rate of absenteeism, compared with 15% for students in other career academies and magnet schools, 20% for students in no special programs, and 21% for regular *JROTC* students (programs not integrated with career academies.)

Many programs in this report succeeded in reducing dropout rates even though they served a student population that tends to leave schools in higher numbers. The *Quantum Opportunities Program* (QOP) serves youth from families who are on public assistance.

QOP dropout rates were significantly lower than the rates of a matched control group (23% vs. 50%). *Advancement Via Individual Determination (AVID)* is geared toward low-income students whose parents did not attend college. *AVID* schools in California had a 37% decline in dropout rates over three years, compared with a 14% decline in non-*AVID* schools.

Figure 3: Comparing absenteeism rates



Source: Hanser et al. (1999)

JROTC-CA JROTC Career Academies
CA/Magnet Other Career Academies/Magnet schools
Other No special program
JROTC JROTC programs not related to career academies

- *Grades and Test Scores*

Students who remain in a program will have more opportunities to learn and therefore, to improve their academic performance. The most frequent measures of academic performance in primary and secondary education are grades and standardized test scores. Students in *JROTC-CA* earned a 40% higher Grade Point Average (GPA) at 2.39 than students outside the academies who earned a 2.05 on average. *Youth River Watch* in Austin, Texas, engages academically struggling students in a hands-on research project to measure the city's water quality. Despite their initial academic problems, at the end of the program, *River Watch* students average grade on a 100 point scale was 3 points higher than the control group (82.3 vs. 79.2 respectively). Project Learn, of the *Boys & Girls Clubs of America (B&GCA)*, provides youth who live in public housing with academically-oriented after-school programs. Program participants increased their grades by 5 points, from a C+ average (78.5) before the program to a B average (83.5) afterwards.

Given the difficulty of comparing grades and credits from school to school, state educational assessment officials and college admission officers rely on standardized tests to corroborate other measures of academic achievement. Mandatory standardized testing also allows programs and school initiatives to measure their participants' performance against comparison groups. The evaluation of *Maryland's Tomorrow* revealed that participants outscored non-participants on a standardized state achievement test in all 27 schools studied with average passing rates of 78% vs. 62% for the comparison group. Results from the Texas Assessment of Academic Skills (TAAS) revealed that *Tech-Prep* students increased pass rates by 16% compared to a 12.4% increase among students in mainstream classes.

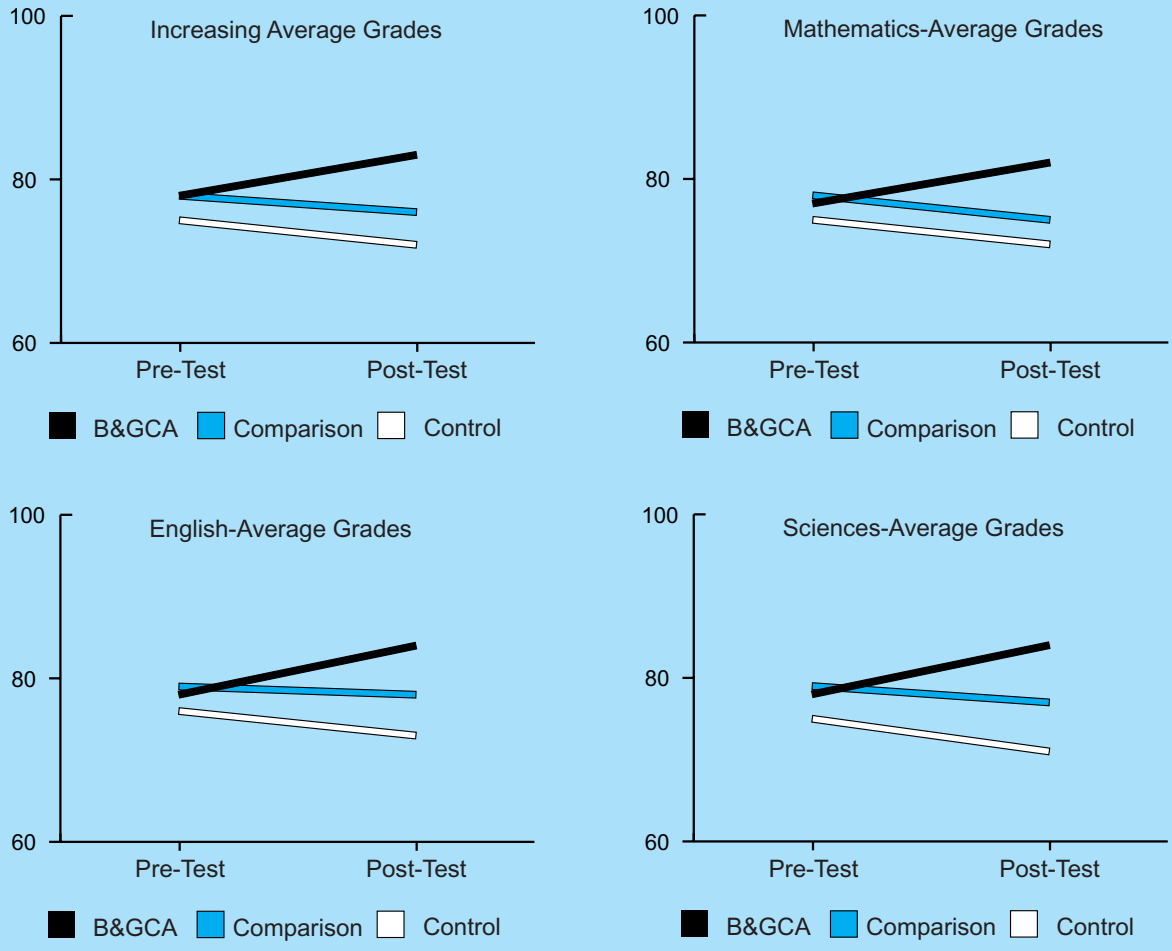
Understanding that statewide tests vary in difficulty and cut scores, college admissions officers continue to rely on the Scholastic Assessment Test (SAT) for comparing academic achievement nationwide. Getting more students to take the SAT or other nationally standardized exams is an achievement in itself. The *Gateway to Higher Education (Gateway)* program was found to improve not only the frequency of test taking but also the scores, raising participant's SAT math scores by more than 60 points and verbal scores by 30 points over the national average. *Project ASHS*, New York, serves LEP students who are over the age limit to attend high school. During the period of evaluation, close to 2,000 *ASHS* students who had taken the SAT prior to coming to the program took the test again afterwards. Of these, 97% showed an average gain of 16.5 points in the second test.

- *Credits Earned and Advanced Course-Taking*

While grades measure incremental progress within courses, the number of credits earned represents concrete steps toward a high school diploma. The students in *JROTC-CA* not only earned higher GPAs, but also earned an average of 47.5 credits per year (from a maximum of 60 credits).[14] This was four more credits per year than students in other magnet or career prep programs and 12 more than students taking traditional curricula. Participants in *Student Support Services* nationwide increased college credits earned by a mean of 2.25 in the three years of the longitudinal study. Similarly, students at *Upward Bound* programs completed at least one more high school credit than control group members, and Hispanic students completed two high school credits more than the control group.

One final measure of success from school data is the proportion of students taking academically challenging courses. *High Schools That Work*

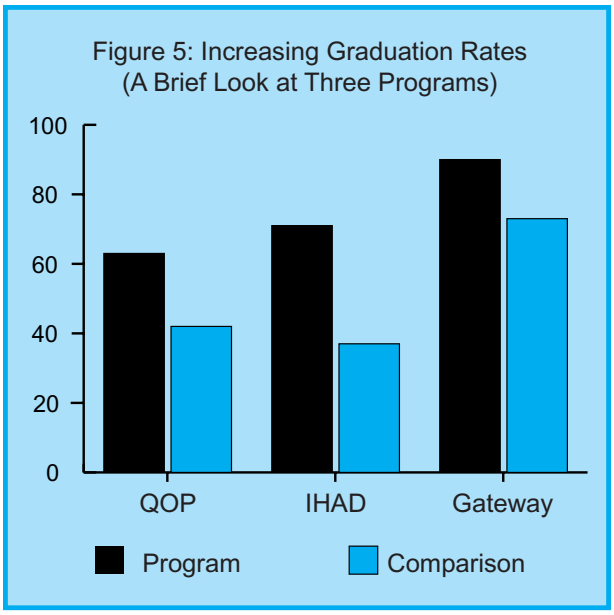
Figure 4: The academic impact of the Boys & Girls Clubs of America Project LEARN



Source: Schinke & Cole (1991)

B&GCA youth in public housing projects who participated in B&GCA-Project Learn
Comparison youth in public housing projects with B&GCA but no Project Learn
Control youth in public housing projects without B&GCA
[Tested with a program designed exam after 18 months in Project Learn.]

increased the percentage of students taking four or more full-year courses in mathematics from 32% to 40%. In the school year 1993-94, *Hoke County High School*, North Carolina, initiated comprehensive reforms to improve its overall performance. From 1993 to 1996 the number of students taking college preparatory biology courses increased from 37% to 85%. Ninety-eight percent of *Gateway* graduates took advanced mathematics courses compared with 52% of high school graduates in a comparison group. Gateway students also took chemistry and physics more frequently than the comparison group (97% vs. 56% and 83% vs. 25% respectively).



- *High School Graduation*

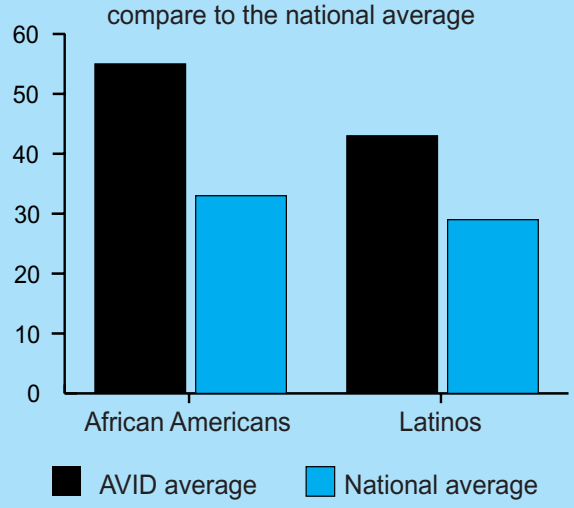
High School graduation is important for gaining higher wages, better employment, and college acceptance. It is no surprise that many programs serving high school students focus heavily on improving the chances for graduation. With long-term staff support, *QOP* participants are more likely to graduate than peers in the control group (63% vs. 42%). Seventy-one percent of *I Have a Dream* students in Chicago graduated from high school, compared to 37% in the control group. Students at the *Career Academies* in California were 8.7% more likely to graduate from high school than similar students in non-academy schools. Ninety percent of *Gateway* students graduated within the evaluation period, compared to 73% for a similar group of students who did not have the program.[15]

- *College Access and Retention*

With the increasingly technological nature of today's workforce, college access, retention, and completion are more important than ever in improving young people's chances for a better future. Many of the programs selected focus on increasing the college readiness of their students and facilitating their access to postsecondary education. More than 92% of *Gateway* participants and 93% of *AVID* alumni (students who began the program with a C average) enroll in four-year colleges. Of *AVID* alumni, 89% remained in college two years later, compared with a national college enrollment rate of 75% and two-year retention rate of 60%. Students at the *Career Academies* in California were 11.6% more likely to attend a postsecondary institution, and 17.9% more likely to go to a four-year college than non-academy students. Similarly, more *QOP* graduates pursued postsecondary education than the control group (42% vs. 16%), and more attended a four-year college (18% vs. 5%). *Sponsor-a-Scholar* participants were nearly three times more likely to attend college the first year after high school. A similar finding is reported for *I Have a Dream* students.

Yet access is only part of the story. Many programs also focus on improving student retention after they enter postsecondary education.[16] *CollegeBound* students who entered the University of Maryland had a 17% dropout rate vs. 47% for comparable Baltimore graduates. Eighty-nine percent of *AVID* graduates remained in college two years after they entered, a rate 60% higher than the national average. Participants in *Student Support Services* stayed at the same postsecondary institution for three years at a 9% higher rate than a matched comparison group.

Figure 6: Enrollment rates at four-year colleges; how AVID minority students compare to the national average



Strategies of Successful Youth Programs

What makes a program successful? What strategies motivate students to come to the program and learn? These are the questions that we tried to answer through a careful analysis of the successful programs included in this report. To pursue this analysis, we made an initial list of program components according to descriptions in the evaluations and program literature (brochures, reports etc), supplemented by results of a comprehensive survey of all 95 programs conducted in Fall 1999. We also listed the features that the evaluators considered as ontributing to the program success (included under "contributing factors" in the summaries). This initial list contained 80 features. Using a process of coding,[17] we started to consolidate the features until we were left with five overarching strategies shared by most of the programs:

A Note on Equity

Many of the programs and school reforms analyzed in this report focus on raising the academic achievement of groups traditionally at higher risk of failing academically, including racial/ethnic minorities, youth from low-income families and others. A crucial component of assessment for initiatives that serve large and varied groups of youth is to disaggregate their data by sub-groups, such race/ethnicity, gender and family income, to ensure that *all* participants achieve success. Though disaggregation of outcome data may require more work during the data collection phase and can reveal limitations of program strategies, it is absolutely essential, because average score increases can hide serious gaps in student achievement. This is an issue of equity and fairness for youth intervention strategies that claim to help all young people reach high levels of academic achievement. Sometimes disaggregated data shows that a specific sub-group of youth may not be receiving adequate attention or the intervention does not respond to their needs. For other programs, outcomes for those sub-groups may show greater improvement than outcomes for all youth in the program and programs should receive additional credit for closing gaps.

Evaluations of *AVID*, *Upward Bound*, *Gateway* and *Career Academies* all break down their impact assessments by race and/or income levels. Fifty-five percent of African Americans and 43% of Latinos who complete the *AVID* program, for example, attend four-year colleges compared to national averages of 33% and 29% respectively. *Gateway*, which raised the SAT scores of all participants, also dramatically increased the scores of African Americans and Puerto Ricans in the program by 200 points over the national averages for these groups. The disaggregated data from these programs convinced the American Youth Policy Forum of the need to assess the strategies and impact of youth programs that improve minority academic achievement. This led to the development of our compendium of research on this topic tentatively titled **What We Know About Raising Minority Academic Achievement** (forthcoming summer 2001).

- High Expectations for Youth, Program and Staff
- Personalized Attention
- Innovative Structure/Organization
- Experiential Learning
- Long-Term Support

Our analysis suggests that the key to success is not any one of these strategies, but rather a mix of elements from the five strategies that help students attain well-defined goals. In the next several pages, we discuss each of the five strategies and give examples of how the programs highlighted in this report implement these strategies.

- ***High Expectations for Youth, Program and Staff***

The term "high expectations" has different meanings in different settings. In fact, high expectations are often applied only to one of the partners in the teaching/learning process. When applied only to the students, high expectations often result in demanding programs that cannot deliver what they expect. Similarly, a program where high expectations are limited to those who are more likely to succeed (and who will succeed even with no further help) cannot claim success. Program administrators frequently claim to have high expectations for their programs and participants. The challenge is how to translate these abstract concepts and lofty goals into achievement.

The following features reflect high expectations for both participants and programs: academically challenging programmatic content; the expectation that all students have the ability to succeed; clear, well-defined education goals; ongoing staff training; and rigorous program evaluation.

The traditional interpretation of high standards in youth programming emphasizes the importance of setting challenging goals for young people. For example, the *B&GCA* developed an after-school project to enhance the educational achievement of children living in public housing projects. The program required children to pursue a carefully planned schedule of activities, while providing them with supports and incentives to inspire achievement. C-average students are rarely encouraged to attend college preparatory classes that are geared toward students with higher GPAs. The *AVID* program serves well-behaved, C-average students and requires them to take advanced academic level classes and introductory college coursework. Advanced course taking, including high level math and science courses and Advanced Placement courses, is a core part of *Gateway*'s strategy for student success. All the TRIO programs and *Sponsor-a-Scholar* also emphasize advanced course taking. Overcoming low expectations for youth is an important strategy for all the programs in this report. *Success for All/Exito para Todos* epitomizes this approach in its philosophy that all children can learn to read at early ages. In Chicago, *I Have a Dream* believes that children from low-income families can realize their dreams of going to college. The program requires its students to attend college preparatory classes while pairing them with local sponsors who give them much needed financial and personal support.

High standards for program implementation are shown through an emphasis on continuous, high quality staff training and rigorous program evaluation. These high standards for program implementation are necessary to help young people achieve high expectations – as needed as the personalized attention and innovative curricula described in the next sections. *B&GCA* trains staff, volunteers, and parents to help the youth stick to their scheduled enrichment activities, and their program evaluation was one of the most comprehensive studies in this report, including comparison and control groups as well as an 18-month follow-up study. This follow-up study revealed that average grades of *B&GCA* participants were significantly higher than the grades of non-participants from similar backgrounds. Well-trained staff for *I Have a Dream* facilitate the relationship between students in the program and their sponsors. A comprehensive, third-party evaluation of the program assessed the success of its implementation and outcomes, revealing that "dreamers" were twice as likely to graduate from high school and four times more likely to enroll in four-year colleges than their peers. An ongoing monitoring and evaluation

system guaranteed that *AVID* staff and tutors received extensive training and that the students were meeting the program's high expectations.

When programs are fully implemented after an initial pilot phase, faithfulness to the model is a major concern, and rigorous evaluations ensure quality replication and continuous support for high expectations. The evaluation of *High Schools That Work* showed that improved academic achievement was positively related to how well the site had reproduced the model. Similarly, findings from the national evaluation of *Tech-Prep* indicated that the closer the program is to the model proposed in the Tech-Prep legislation, the greater its likelihood to succeed.[18] The *Tech-Prep* implementation in Texas, which is highlighted in this volume, closely reflects and improves upon the national model. Evaluators of *Maryland's Tomorrow* emphasize quality of implementation as an important element for program success. They suggest that sound implementation depends on continuous assessment (a mix of self-assessment and adoption of standard systems) and cooperation among all stakeholders (parents, teachers and administrators).

- ***Personalized Attention***

As unique individuals, each program participant has specific needs, strengths and weaknesses. Each will respond to the challenge of "high expectations" with his or her idiosyncrasies and talents, difficulties and bravado. Being different, they cannot conform to "one-size-fits-all" models. Personalized attention is an attribute of all programs in this report, and is provided through the adoption of small learning environments, the use of individual help and support, and a concern for the youth that may need extra services and supports.

Seventeen of the 20 selected programs function in small learning environments. Under this rubric, we included one-on-one instruction (mentoring and tutoring), small group instruction, small classes, small schools, and school-within-a-school arrangements. *I Have a Dream*, *CollegeBound*, S*ponsor-a-Scholar, Student Services Support* and *Upward Bound* offer individualized attention to students through long-term tutoring or mentoring systems. At *Youth River Watch,* youth are closely accompanied by knowledgeable adult staff and peer mentors. *B&GCA* encourages small group conversations with knowledgeable adults as a learning strategy. *High Schools that Work* offers a mix of tutors and resource teachers to provide extra help for students who are struggling academically. *ABACUS* students develop individualized study plans that are implemented via computer-assisted instruction. *AVID* and *Success for All/Exito para Todos* emphasize small learning groups. *Gateway* adopts small classes and keeps teacher-student communities together for four years. *QOP* has a maximum of 25 participants per program. *Career Academies, JROTC-CA* and *Turner Tech* break large schools into smaller school-within-a-school units. Some of the *Maryland's Tomorrow* sites operate as school-within-a-school, while others use a pull-out structure.

Personalized attention goes beyond academic support to include an overall concern with the youth as a person. Assistance comes in many forms, such as support with homework, referral to health care and social services, career exploration, filling out college applications and financial assistance forms, helping the youth's family and ensuring a stable, supportive adult presence in the youth's lives. Individualized financial assistance is a feature of five programs that focus on providing youth from low-income families with opportunities to enroll in college. For these young people, too often, a wealth of mentors, small study groups, curricular reforms, and high expectations cannot overcome concrete financial barriers to college access. *Sponsor-a-Scholar* addresses this issue by eliciting a commitment of both time (five years) and money ($6000) from mentors. This money covers books and travel expenses during students' college years, and it is a crucial supplement to other needs-based support that students receive. *I Have a Dream* sponsors make similar commitments of time and money to help dreamers enroll in college. *Upward Bound* offers high school freshman and sophomores small stipends, in addition to financial aid planning. *CollegeBound* pays for the costs of higher education not covered by need- or merit-based scholarships

and assistance, while *QOP* offers matched savings plans to help participants pay for future education and training.

Some of the selected programs also foster environments that encourage and reward individual achievement. *B&GCA* holds public ceremonies to reward participants for their performance. When *Youth River Watch* participants present their findings to experts, they know that their work is valued — a symbolic but important reward for youth who come to the program with the label of "under-achievers." However, most of the programs do not emphasize the role of awards and other special incentives on achievement.

- ***Innovative Structure/Organization***

To fulfill their high expectations and maintain high standards, program planners and implementers must dare to be innovative. Innovative changes in structure and organization used by the programs in this report include: paying attention to the research; flexible hours of operation; extending the school year; using the summer months and after-school time; changes in teacher and administrator roles; team teaching and teacher involvement in program design; and family, business and community involvement.

The first innovation is a simple, but rarely adopted measure among educators — to embrace research-based solutions for well-known problems. For example, the use of small learning communities described in the preceding section. Providing flexible schedules is another research-proven strategy. It is well-known that many older, low-income youth, particularly from immigrant families, must work to help their families. The conflict between school and work schedules eventually pushes many of them away from school.[19] Aware of this problem, two programs that serve older youth — *ASHS* and some *Maryland's Tomorrow's* sites – replaced the traditional Monday through Friday, morning-to-afternoon hours with flexible schedules that work around participants' needs.

Changes in learning time are another innovation of these programs. *Hoke County High School* and *Union City School District* avoid the continuing disruption of fifty-minute classes through block schedules that provide students with longer exposure to each discipline. Educators regularly complain about the decline in learning that occurs during the long summer vacation. *Gateway* schools solved this problem by extending the school year to 11 months, with a month-long summer program for students who are entering the ninth grade. They also offer a summer program at universities and research institutes for juniors and seniors. *Sponsor-a-Scholar* and *Upward Bound* also use the summer months to provide students with extra academic support, including study skills and SAT preparatory classes. Summer classes at local community colleges give these youth a taste of college life. Both *B&GCA* and *Youth River Watch* are after-school programs that prolong the academic experience into hours when most youth are idle.[20]

In some of these programs, teachers are at the forefront of innovation, revamping traditional rules, planning and developing curricula and establishing standards. At *Turner Tech*, no barriers exist between teachers and administrators. Together, they share teaching, administrative and counseling duties within the school, and are expected to be role models. At *Success for All/Exito para Todos* teachers meet regularly to coordinate activities and approaches centered on the individual child. Coordination among teachers for curriculum planning and development is also part of *Career Academies* and *Tech Prep*. Teachers were actively involved from the beginning in the comprehensive reform that changed *Union City* from an under-achieving school district into a successful, technology-driven school district.

Family and community involvement are known strategies to bridge the divide between schools and the youth's social network. *High Schools That Work* includes parents/guardians as members of their advisory council. *ABACUS, B&GCA, Hoke County* and *Success for All/Exito para Todos* offer workshops and referral services for families. *Union*

City School District connects teachers and parents through the Internet and has developed a "parent university" with math, science, computer, English as a second language and parenting skills classes. Partnerships with local employers permeate the concept of *Career Academies*, *Maryland's Tomorrow*, and *Turner Tech*. *ABACUS* involves the local ethnic communities in the planning and development of extra-curricular activities. *B&GCA*, *I Have a Dream*, *QOP*, *Sponsor-a-Scholar* and *Upward Bound* rely intensely on the community for mentoring activities and for service referral.

- ***Experiential Learning***

A reinvigorated educational environment requires new instructional strategies that make learning exciting and meaningful to students' lives. One strategy to impart real world skills with classroom learning is to overhaul the traditional separation between academic and vocational curricula. Of the 12 secondary school programs included in this report, seven integrate demanding academic coursework with career preparation. *ABACUS* offers bilingual courses on business, law and health careers to help LEP students master both the English language and valuable work-related skills. *Turner Tech* plans their academies according to career opportunities in the Miami/Dade County area. The academies provide instruction in the arts, academics and vocational subjects such as industrial technology, finances, television production, and applied business technology. Integration of academics with vocational education is also an essential component of *Career Academies*, *Career Academies JROTC*, *High Schools That Work*, *Hoke County*, and *Tech Prep*.

However, not all successful programs include career and vocational education topics in their curricula. *AVID* and *Gateway* are strictly academic programs that emphasize college preparatory courses, such as advanced level mathematics, sciences and foreign languages. *Union City* has a strong technology program, but no references were found to vocational courses. *ASHS* focuses on preparing older youth for GED classes or college entrance examinations. The data we have does not allow for comparisons between the two groups of programs–those focusing solely on academics and those with a career focus, since the evaluations use different indicators of success and distinct comparison groups.

In addition to the school programs geared toward career preparation cited above, some out-of-school programs that serve secondary students also provide participants with work-related experiences, including *I Have a Dream*, *Student Support Services* and *Maryland's Tomorrow*. Learning for the workplace is not the only strategy adopted by the selected programs to motivate students and prepare them for adult life. Community service is a feature in *AVID*, *B&GCA*, *Maryland's Tomorrow* and *QOP*. Familiarizing students with technology is a goal of at least four programs. *ABACUS* and *QOP* use computer-assisted instruction that enables students to work at their own pace. Technology enhances staff training at *Hoke County*, and *Union City* connected the schools to the community and the world through the Internet. *JROTC-CA* uses military instruction by retired military personnel to instill a sense of responsibility, discipline and leadership in their young students. Youth leadership training is also part of *B&GCA*, *Maryland's Tomorrow* and *QOP* strategies. *Youth River Watch*, a program for middle and high school students who are at risk of dropping out of school, includes both strategies: work-related experiences and community services. The program gives stipends to students who test the city's water quality. While doing this service to the community, the students are learning and applying concepts of mathematics, sciences and technical English. They also develop desirable work-related skills, such as completing tasks, working in groups, writing research reports and presenting findings to an assembly of experts.

Considering that fun is an important (and healthy) part of life, a few programs mix activities that are both fun and educational. *Success for All/Exito para Todos*, the only program for elementary school children in this publication, balances its academic focus with arts and kinetic activities. *Gateway* exposes low income, inner-city students to a variety of cultural experiences, such as attendance at operas, symphonies and theater, visits to museums

and contact with scientists. *ABACUS* helps immigrant students become familiar with their new country through field trips to places of cultural significance. *B&GCA* uses educational games, field trips to museums and theaters, and discussions with knowledgeable adults to encourage youth from public housing projects to succeed academically.

- ***Long-Term Support***

Finally, successful programs understand that changing study habits and teaching young people how to think are complex tasks that require dedication and time. Two main strategies programs use to provide long-term support are continuing the program for a year or more and providing transition services.

Most programs in this report serve youth for one year or more. *B&GCA* academic project is open entry, and youth can participate as students, and then continue on as mentors. *Student Support Services* assists low-income college students as long as they need to continue their education. The *Tech Prep* model is often expanded upon to include all four years of high school, rather than only the final two high school years. Several programs continue to serve youth for four or more years. In *QOP*, adult mentors remain with the same cohort of young people for four years, beginning at the 9th grade, even if the youth drop out of high school. *Maryland's Tomorrow* provides high school students *five* years of services. Many youth actually maintain contact with their mentors or program staff for longer periods.

Providing transition services is also a common strategy. All the high school programs discussed in this report offer transition services to support youth in the difficult period when they are preparing to leave school but are still not sure about their future. These services may be as simple as ongoing career guidance, or as complex as placing students in college freshmen introductory classes to offer them a first-hand experience in college life. The *Tech Prep* model is designed with this transition period in mind. It attempts to smooth the passage from high school to postsecondary education through cooperative agreements between secondary and postsecondary education institutions. *I Have a Dream, CollegeBound, Sponsor-a-Scholar* and *Upward Bound* also aid with the transition process by providing youth with stable adult relationships throughout their high school careers and the first few years of college.

Youth development research indicates that helping young people achieve success requires dedication, competence and time.[21] In response to research findings, The Workforce Investment Act requires longer term services and 12 to 24 month follow-up after program completion from youth training initiatives. The programs reviewed for this report concur with the youth development findings. For instance, the evaluation of *Upward Bound* shows that the earlier the students are involved with the program, the more likely they are to profit from it. The research on youth programs is clear about the importance of long-term strategies. For programs to boost academic achievement of young people, we can say with confidence that short-term, quick fix interventions do NOT work.

Conclusions

Despite the widespread assertion that "nothing works"[22] in programs for youth, rigorous evaluation studies reveal that youth programs can be successful. The 20 programs selected for this report provide evidence that improving the educational achievement of American youth — including minority, economically deprived youth — is possible. With the help of outside evaluators, or through their own interest and efforts, program staff collected hard data, indicating real gains in academic achievement for their participants. When compared to peers or to their own previous academic performance, the youth attending these programs have higher test scores, graduate from school in higher numbers, and enter and remain in college in higher numbers.

Analyses of successful youth programs indicate that they share common features, regardless of their purpose and focus.[23] The programs selected for this report share five basic strategies. First, they hold stakeholders to high standards and have high expectations for all – youth, program and staff alike. Second, they offer personalized learning environments, where services are tailored to each youth often in small learning communities. Third, they dare to be innovative, breaking with traditional structures and utilizing research findings to improve outcomes. Fourth, learning is no longer a boring process, disconnected from the youth's lives, but rather a process that can be immediately applicable and even fun. Fifth, because changes in behavior and attitudes require consistency and patience, these programs are grounded in long-term, stable relationships with adults who support the youth as they embark on the difficult, but exciting journey to adulthood.

Aside from a shared set of highly successful outcomes, the programs in this report are quite different from each other. Some are school-based programs; others are after-school or out-of-school initiatives. Some have very focused objectives, such as improving the reading achievement of elementary school children; others are a last resource for youth who are struggling in traditional learning settings. Still others have the ambitious goal of helping disadvantaged youth beat the odds and succeed in college. These programs are bundled together here, because they all have the same message: if we trust youth and give them appropriate tools, they will succeed in education.

It is our hope that this report will provide policymakers, educators, youth development practitioners and families with a powerful guide to successful educational strategies that should be emulated, expanded and replicated. For those who fear that mediocrity in public education is an invincible monster, the programs in this report reassure that if such a monster exists, it is vulnerable.

However, as the findings suggest, good intentions and dedication are not enough. Financial and political supports are essential elements in any attempt to ameliorate complex social problems, such as low educational achievement. The comprehensive reform of *Union City School District* relied on extra financial support from the state and a large corporation. *Youth River Watch* has the city's financial support. *Career Academies* are often costlier to implement than general track programs and many of them seek external sources of funds. *JROTC-CA* received help from the Department of Defense. Private foundations and public funds support most programs in this list. Society must hold itself to high standards and expectations and make a commitment to improving the academic achievement of American youth, for there is no worthier investment in our future.

The Final List: High Academic Achievement Programs and School Initiatives

Evaluations of 20 programs met all our criteria and are presented here. Exclusion from this report in no way indicates that the other programs in the two compendia were of less quality than the ones selected. It indicates only that the evaluations of those programs did not meet our added criteria for this report or that their measures of success were not related to academic performance.

The following programs have significantly improved the academic achievement of young people:

ABACUS/ASHS: NY
Advancement Via Individual Determination (AVID)
Boys & Girls Clubs of America (B&GCA)
Career Academies: CA
Career Academies – Junior ROTC (JROTC-CA)
CollegeBound
Gateway to Higher Education
High Schools That Work
Hoke County High School
I Have a Dream
Maryland's Tomorrow
Quantum Opportunities Program (QOP)
Sponsor-a-Scholar
Student Support Services
Success for All/Exito para Todos
Tech Prep: TX
Turner Technical Arts High School
Union City School District: NJ
Upward Bound
Youth River Watch

Note: Two programs - ABACUS *and* ASHS *- were summarized together for the second compendium and will remain together in this report. The summary of* Boys & Girls Clubs of America *was modified from the compendium version to include only its academic program (the original version includes two evaluations, one of them related to their drug prevention program). Contact information has been updated.*

ABACUS & ASHS: New York City

A Summary of:

The Academic Bilingual and Career Upgrading System (Project ABACUS): Final Evaluation Report, 1993-94

Auxiliary Services for High Schools (Project ASHS): Final Evaluation Report, 1993-94

Both evaluations by the Office of Educational Research, New York City Board of Education (New York, NY)

Overview

New York City has a variety of bilingual education programs aimed at helping its large student population with limited English proficiency (LEP). The programs are funded under Title VII of the Elementary and Secondary Education Act and are evaluated by the New York City Board of Education. This summary includes two of the programs evaluated during the School Year 1993-94. The **A**cademic **B**ilingual and **C**areer **U**pgrading **S**ystem (Project ABACUS) offers pre-vocational training in careers related to business, law or health to LEP students. **A**uxiliary **S**ervices for **H**igh **S**chools in Bilingual Resource and Training Center (Project ASHS) focuses on preparing students, who are over the traditional high school age, to take the GED.

POPULATION

During School Year 1993-94, ABACUS served 416 students from grades 9 through 12. Of these students, 44 percent spoke Cantonese, 17 percent Korean, 16 percent Mandarin, 15 percent Spanish and eight percent spoke a variety of other languages. Fifty-four percent were male and 96 percent came from low - income families. During this same period, ASHS served 4,732 students from grades 9 through 12. Project students spoke more than 16 different languages, mainly Spanish (68 percent), Creole (13 percent) and Cantonese (11 percent). Although the largest population was of Hispanic origin (68 percent), the Haitian population was the fastest growing. To be eligible for any of the two programs, students must score at or below the 40th percentile in the Language Assessment Battery test.

Evidence of Effectiveness

Students were assessed before entering the programs and their progress was monitored throughout the year. The programs' outcomes were also evaluated against their stated objectives. Research findings for Project ABACUS indicated that:

- of the 289 students who took the Language Assessment Battery (LAB), 53 percent showed gains with a statistically significant mean gain of 4.2 Normal Curve Equivalents (NCEs)
- 92 percent of the Spanish-speaking students and 96 percent of the Chinese students passed their native language tests
- approximately 90 percent of the students passed their courses in mathematics, science, social studies and computer science tests in the Fall semester, and over 80 percent passed the courses in the Spring semester

- the average attendance rate of Project ABACUS students was 96 percent compared to 87 percent for non-participant students in the same schools

The Project ASHS evaluation showed that:

- 96.8 percent of the 1,827 students with pre- and post-test scores on the SAT showed a post-test gain, with a statistically significant average gain of 16.5 points
- approximately 70 percent of students in English as a Second Language classes were promoted at least one level in English language proficiency
- 87.2 percent of the 125 students who completed pre- and post-tests in Spanish proficiency showed a gain, with a statistically significant average gain of 7.3 points
- 94.2 percent of the 379 students who completed pre- and post-tests in math improved their scores, with a statistically significant average gain of 7.4 points
- 80 percent of the students were referred to GED classes

Key Components

Project ABACUS provides:

- ESL classes
- native language instruction (Chinese, Korean and Spanish) 30 percent of the time or more
- bilingual content area subjects (social studies, sciences and mathematics)
- vocational education in business, law, and health careers (in the available languages)
- individualized and self-directed instruction (use of Plato program-computer assisted instruction and audio-visual equipment)
- field trips to increase students' familiarity with American culture and citizenship
- special after-school programs for Gifted and Talented students

Project ABACUS staff participated in workshops related to multicultural issues, including strategies to improve students' writing skills and self-esteem. Parents were offered afternoon and evening ESL classes, training workshops and orientation on employment and naturalization issues. Staff also encouraged parents of participating students to visit the school and meet with their children's teachers and project staff. Students remained in the program for approximately 15 months.

In addition to GED classes, Project ASHS offered:

- ESL classes
- Native language instruction (Chinese, Vietnamese, Greek, Haitian, Korean and Spanish)
- a flexible schedule (morning, afternoon, and evenings) on an open-enrollment basis
- assistance in career and vocational counseling

Contributing Factors

Individualized Planning

Project ABACUS staff assessed each student's skills at the beginning of the school year before developing an individual plan to guide each student throughout the year. Students also received individualized academic counseling and tutoring and their progress was monitored throughout the semester. Project ASHS teachers used a wide array of teaching strategies and techniques, including cooperative learning, small study groups and computer-assisted instruction.

Flexible Schedule

Project ASHS provided classes in the mornings, afternoons and evenings to respond to students' needs, especially as many immigrant youth work full time at early ages. The flexible schedule required a high degree of communication among day and evening staff, which proved to be difficult.

Vocational Focus

In Project ABACUS, vocational education courses are taught in the native language. Students used "MetroGuide" to find information on colleges or universities in the United States and met with resource specialists to discuss career options.

Cultural Heritage

Staff incorporated a multicultural perspective into all content area subjects. Project ABACUS schools offered Resource Rooms with newspapers, magazines and other material related to Spanish, Chinese and Korean traditions. Each site invited parents and community members to speak to students about their cultures. Project ASHS staff translated workbooks, reading materials and classroom worksheets into the students' native languages to facilitate learning.

STUDY METHODOLOGY

Researchers used pre- and post-tests to evaluate students' academic performance. The instruments used for Project ABACUS were the Language Assessment Battery Test (LAB) and the ELE, a standardized instrument prepared by New York City educators who are native Spanish-speakers. Project ASHS used the Stanford Achievement Test (SAT), La Prueba de Lectura, and the NYC Arithmetic Computation Test. On-site visits and telephone interviews were used to gather qualitative data on the projects' implementations.

EVALUATION FUNDING

New York City Board of Education.

GEOGRAPHIC AREAS

The two projects are located in New York City. ABACUS operates in Franklin D. Roosevelt and New Utrecht Schools in Brooklyn and William C. Bryant High School in Queens. ASHS operates in 29 sites throughout the city's five boroughs.

CONTACT INFORMATION

Research Contact

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Advancement Via Individual Determination (AVID)

A Summary of:

AVID RESEARCH AND INFORMATION: Annual Report 1998-1999, internal document

Overview

Advancement **V**ia **I**ndividual **D**etermination (AVID) was established in 1980 by two English teachers at Clairemont High School in San Diego, CA, concerned with the large number of students unlikely to pursue postsecondary education. Research has shown that well-behaved, C-average students from low-income families tend to receive the least attention from teachers and school counselors, and enroll in less demanding courses that do not prepare them to enter four-year colleges. AVID provides these students with a college preparatory program that relies on teacher professional development, a rigorous course of study, and the use of college students as tutors and role models. AVID has received a number of awards, including the Golden Bell Award of 1995 from the California School Boards Foundation and the A+ for Breaking the Mold award. AVID is a model program for the U.S. Department of Education's GEAR UP Initiative and America Counts. The program is funded by a mix of foundation grants and state and local education contracts.

POPULATION

AVID has more than 30,000 students enrolled in 700 schools in eight states and 13 foreign countries. Demographic characteristics of participants vary by school and state. Some schools have a large population of Hispanics, others of African Americans. The program serves all students, regardless of their ethnicity or socioeconomic status, but it focuses on low-income students who are first in their families to have the opportunity to attend college.

Evidence of Effectiveness

The percentage of AVID students enrolling in four-year colleges is as follows:

- 93.8 percent for all AVID students (an enrollment rate 75 percent higher than the national average for this target group)
- 43 percent for Latino students who participate in the program for three or more years (the national average for Latinos is 29 percent)
- 55 percent for African American students (the national average for African Americans is 33 percent)

In addition:

- 89 percent of AVID students who enroll in four-year colleges remain two years later (a retention rate 60 percent higher than the national average)
- students from low socioeconomic strata who complete three or more years in AVID enroll in four-year colleges in equal or greater proportion to students from high socioeconomic levels

The California State Department of Education indicates that in AVID schools, from 1985-86 to 1991-92:

- the three-year dropout rate declined by 37 percent compared to a 14 percent decline in non-AVID schools
- the number of seniors completing a four-year college preparatory course of study increased by 95 percent compared to a 13 percent increase for non-AVID schools
- the percentage of graduates enrolling at California public universities increased by 35 percent compared to a one percent decline for non-AVID schools

Key Components

The following elements are required as a condition for use of the AVID™ trade name, trademark and logo:

- prior to the implementation of the program the teacher/coordinator, the site administrator, and a team of subject areas teachers must attend the AVID Summer Institute
- the school must identify resources for program costs, purchase program materials and commit to ongoing participation in AVID staff development and certification process
- student selection must focus on underachieving students in the middle who have the ability to succeed in a college preparatory curricular path
- participation must be voluntary
- the program must be implemented as an integral part of the school day
- tutors must be available and receive training to implement AVID methodologies
- AVID methodologies must provide the basis for instruction in the classroom
- program implementation and student progress must be monitored and results analyzed

Upon entering the AVID program, students:

- enroll in advanced level college preparatory classes that fulfill four-year college entrance requirements

"Students' lofty aspirations, like teacher's high expectations, are essential ingredients for school success, but unless those cognitive processes are accompanied by social support systems, even the highest goals may go unrealized."

AVID Research and Information

- are tutored by college students and exemplary high school peers, who have been trained to use specific teaching methodologies and materials
- attend sessions with guest speakers from educational institutions and the business community
- participate in field trips to places of educational and cultural interest
- attend mini-lessons given by college instructors of freshman-level introductory courses
- receive classes on notetaking, study skills, test taking, time management, effective textbook reading, library research skills, and preparation for SAT/ACT, college entrance and placement exams
- are helped with preparing college applications and financial aid forms

A staff development program integrates curriculum standards with specific student achievement goals. The program focuses on improving students' grades in college preparatory courses, improves motivation

among students from under-represented groups, and restructures schools to provide an enriched education for all students. The development program is provided during the AVID Summer Institutes and monthly follow-up workshops.

Contributing Factors

Parental Participation

Ongoing home contact in the form of regular telephone calls, letters and meetings for parents and students, and the presence of a Parent's Advisory Board, are vital to the success of the program.

Redefinition of Roles and Responsibility

AVID expects parents, businesses and universities to share in the task of preparing and motivating students to continue their education beyond high school. Students assume the responsibility for learning, while receiving support and help from the community. AVID provides the forum in which students are nurtured and challenged.

Group Support

Working in groups, students are taken out of the isolation that characterizes the traditional high school program. They become a part of a new peer group that shares their goals. Learning groups help students realize the connection between power and learning, and once that connection is established, students become independent learners. "It is the ability to learn and to think independently that allows students to go on to make the most of their education, career, and lives" (*AVID Research and Information: Annual Report*).

STUDY METHODOLOGY

The report draws data from 521 AVID sites that include 292 high schools, 223 middle schools and five other sites for a total of 29,799 students.

EVALUATION FUNDING

School district, foundation grants, and state and local education contracts.

GEOGRAPHIC AREAS

In the School Year 1997-98, AVID was implemented in CA, CO, GA, IL, KY, MD, NE, NJ, NC, SC, TN, TX, VA, and Department of Defense Dependents Schools overseas.

CONTACT INFORMATION

Organization Contact
The AVID Center
2490 Heritage Park Row
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http://www.avidcenter.org

Boys and Girls Clubs of America

A Summary of:

ENHANCING THE EDUCATIONAL ACHIEVEMENT OF AT-RISK YOUTH, 2000, *Prevention Science*, 1:51-60, by Steven P. Schinke, Kristin C. Cole and Stephen R. Poulin, Columbia University School of Social Work

Overview

Boys & Girls Clubs of America (B&GCA) was founded in 1906 and has more than 2,000 facilities in all 50 states, Puerto Rico, U.S. Virgin Islands and U.S. military installations abroad. Nearly 400 of these programs are in public housing areas. The B&GCA's mission is to form healthy partnerships between school-aged children of all backgrounds and concerned adults. The public housing initiative was launched in 1987 under the auspices of the Office of Substance Abuse Prevention, U.S. Department of Health and Human Services. In 1996, B&GCA piloted an after-school educational enhancement program for youth in public housing in five cities. This evaluation looks at the results of the pilot study.

POPULATION

B&GCA serves approximately three million children, mostly in economically disadvantaged areas. The evalutation studies 992 youth, with an average age of 12.3 years. Forty percent were female. Of the participants, 63.5 percent were African American, 27.5 percent were Latino, 12 percent were white and 7.8 percent other. The sample reflected the national population of youth who live in publicly subsidized housing.

Evidence of Effectiveness

In each of the five cities, researchers targeted three subgroups of youth to participate in the study: (1) youth attending the B&GCA enhancement program ("program"); (2) youth from public housing projects whose B&GCA did not offer the program ("comparison"); and (3) youth from public housing projects that did not have B&GCA (called "control" by researchers). Between the pre-test and the 18-month follow-up, program youth had improved (differences in means were statistically significant at the five percent level):

- average grade (average grade for program youth rose from 78.39 to 83.48, for comparison youth fell from 78.47 to 76.42, and for control youth fell from 75.43 to 71.79)
- attendance rates (the mean number of missed days in a school year by program youth fell from 6.4 to 3.7, for comparison youth rose from 4.85 to 5.85, and for control youth rose from 7.47 to 7.75)

Grades in most subject areas (Grades were rounded to the closest unit to facilitate reading):

- Mathematics - average grade for program youth rose 4 points (from 77 to 82), while falling 3 points for comparison youth (from 78 to 75) and control youth (from 75 to 72 respectively)
- English - average grade for program youth rose 6 points (from 78 to 84), while falling 1 point for comparison youth (from 79 to 78) and 3 points for control youth (76 to 73)

- Writing - average grade for program youth rose 5 points (from 80 to 85), while falling 1 point for comparison youth (from 79 to 78) and control youth (from 73 to 72)

- Science -average grade for program youth rose 6 points (from 78 to 84), while falling 2 points for comparison youth (from 79 to 77) and 4 points for control youth (from 75 to 71)

- Social studies - average grade for program youth rose 5 points (from 79 to 84), while falling 2 points for comparison youth (from 78 to 76) and 4 points for control youth (from 77 to 73)

Key Components

Each week, within the B&GCA facility or in outside sessions, the trainers engaged youth in structured activities, such as:

- four to five hours a week of discussions with knowledgeable adults

- one to two hours a week of writing

- four to five hours a week of leisure reading

- five to six hours a week of required homework

- two to three hours a week of community service (tutoring other children, for instance)

- four to five hours a week of educational games, such as word and math games

Participation was voluntary and, to entice the youth to participate, program sites used many incentives, such as field trips, school supplies, computer time, special privileges, certificates, gold stars and praise.

Parents were also encouraged to participate with their children in the educational activities. Parents and youth attended an orientation meeting, after which parents were invited to serve as volunteers and to attend the cultural events presented by the youth.

Staff, volunteers and parents attended ongoing training.

Contributing Factors

Structured Program

Some comparison and control sites also offered tutoring and homework help, but did not have the structure offered by the B&GCA program, did not require homework and tutoring, and did not engage routinely in educational games to enhance the lessons being taught.

Trained staff

Another difference between B&GCA program and the comparison and control sites was the presence of a trained staff solely focused on educational enhancements.

STUDY METHODOLOGY

This study used both a comparison and a "control" group. Participation in the groups was voluntary (not randomized). Comparison and control groups mirrored the age, gender and ethnic/racial background of program youth. Some of the youth in the comparison and control groups received tutoring, but did not attend a structured after-school program. The attrition rate at the end of the study was 13.91 percent, with no significant differences between subgroups. Researchers used students' surveys, teacher ratings and school records to collect data at the beginning of the program (pre-test), six months later (post-test) and 18 months later (follow-up). Findings were consistent across all measures. This summary presents only school data.

EVALUATION FUNDING

Carnegie Corporation of New York.

GEOGRAPHIC AREAS

Public housing projects in Cleveland, OH; Edinburgh, TX; New York City, NY; Oakland, CA; Tampa, FL.

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Career Academies: California

A Summary of:

THE RELATIVE IMPACT OF A CAREER ACADEMY ON POST-SECONDARY WORK AND EDUCATION SKILLS IN URBAN, PUBLIC HIGH SCHOOLS:

1997, The Human Investment Research and Education Center (HIRE), by Nan L. Maxwell, School of Business and Economics, California State University, Hayward, and Victor Rubin, Institute of Urban and Regional Development, University of California, Berkeley

Overview

Career Academies aim to prepare young adults for both postsecondary education and productive employment, regardless of their prior level of academic ability. Common features of career academies are: (1) a "school-within-a-school" program that generally starts at grade 9; (2) integrated academic and work-related subjects centered on a specific career theme; and (3) partnerships with local employers. More information on Career Academies can be found in *Some Things DO Make a Difference for Youth.*

POPULATION

Researchers analyzed data from a California school district with over 50,000 students. Of these, more than 90 percent were minorities, over one-quarter had limited English proficiency and nearly 40 percent received free lunches. The average student-teacher ratio in high schools was 28:1. The district average daily attendance was slightly over 80 percent. Compared to students in regular school programs, career academy students are mostly female (72 percent), live in impoverished areas, are less likely to have English as their native language and have low scores on tests taken prior to their entrance into the academy.

Evidence of Effectiveness

When compared to California high school graduates from general and vocational tracks, career academy graduates were:

- 8.7 percent more likely to graduate from high school
- 11.6 percent more likely to attend a postsecondary institution
- 17.9 percent more likely to attend a four-year college

The sample was further compared in 13 self-assessed measures of knowledge and skills, organized in three groups: *work focus* (meet work deadlines, communicate with others, be punctual and be self-motivated); *education focus* (think critically, improve in basic skills, develop good study habits, maintain positive attitude toward education/training, and prepare for current education/training); and *school-to-work focus* (become aware of what is required for success, gain confidence about your abilities, understand the link between school and work, and set future goals). Researchers found that:

- for individuals who ended their education at high school, there was no relation between the acquisition of the measured knowledge and skills and the type of high school program attended
- for those attending 2-year colleges, graduates from career academies and vocational tracks scored significantly higher than those in general education and academic tracks in measures related to education and school-to-work focus
- for those attending 4-year colleges, graduates from career academies scored significantly higher than general and vocational track graduates in all 13 measures, and as high or higher than graduates from the academic track in many measures

Results are not evenly distributed among all career academy students and programs. Outcomes are better for women, African Americans and native English speakers. Therefore, researchers suggest that career academies should not be offered as the only high school option within a school district.

Key Components

Career academies share the following characteristics:

- "school-within-a-school" programs throughout the high school years (grades 10-12)
- strong academic focus combined with work-related subjects centered on a specific career theme
- use of innovative instructional methods, often project-based learning
- team work by academic and vocational teachers to integrate the curriculum
- partnerships with local employers who represent the career theme and help to plan and implement the program, provide work experience and serve as mentors for the students
- paid internships, mostly during the summer after the junior year

The career theme can be an occupation, profession or industry in demand by the local labor market. Common themes are health occupations, business, finance, travel and tourism and electronics.

Contributing Factors

A Structured Environment

The fact that results from career academy students are similar to those of students who graduate from vocational and academic tracks (rather than a less-structured general track) suggest that providing structure may be a key element to enhance education in high school.

Integrated Curriculum

Career academies emphasize both rigorous academic subjects and work-based learning. Teachers use innovative techniques and employers are directly involved in all steps of the program. Students work in monitored paid jobs where they can practice what they are learning in school.

Harder to Serve Population

Compared to general and vocational track graduates, career academy students are more likely to graduate from high school and attend postsecondary institutions. This happens despite the fact that they are less likely to have English as their native language, more likely to live in impoverished areas and have low scores in standardized tests taken prior to their entrance into the academy.

STUDY METHODOLOGY

Researchers compared postsecondary information for students in regular secondary school programs (divided into general, academic and vocational tracks) and those in career academies in a large urban school district in California. Data was collected from student records and a survey sent to graduates who were sophomores during the years 1990-1993. A total of 1,223 surveys were analyzed by means of regression and correlation tests. To evaluate whether the findings could be generalized, the California sample was compared to a national sample taken from the National Education Longitudinal Study (NELS). The Californian sample was found to be more impoverished, with more minority and LEP students than the national sample.

EVALUATION FUNDING

Research partially funded by the W.E. Upjohn Institute for Employment Research.

GEOGRAPHIC AREAS

Career academies are located nationwide; the study focuses on an undentified school district in California.

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Additional Resource: *A detailed analysis of the career academies in the school district involved in this research will be forthcoming in a book published by W.E. Upjohn Institute for Employment Research.*

Career Academies: Junior ROTC

A Summary of:

CAREER ACADEMIES: EVIDENCE OF POSITIVE STUDENT OUTCOMES, 1999, unpublished document, by Lawrence M. Hanser and Marc N. Elliott (RAND), and Curtis L. Gilroy (U.S. Department of Defense)

Overview

Career academies are schools-within-schools that provide students with academic and vocational instruction integrated around a career theme. In 1992, the U.S. Departments of Defense and Education added a new dimension to the traditional career academy model with the Junior Reserve Officers Training Corps (JROTC) program of instruction. JROTC career academies (JROTC-CA) aim to foster academic and vocational skills, while giving students a sense of civic and personal responsibility. At the time of the study, there were 36 JROTC-CAs operating in 33 cities in 23 states, with a total of approximately 3,800 students.

POPULATION

Researchers collected data on almost 7,000 students in schools on the West Coast and in the Midwest, including students in JROTC Career Academies, other career academies, magnet schools and other programs. Of the whole sample, more than half of the students were Hispanic, nearly one quarter were African American, 16 percent were white, and 49 percent were females. Of the students who attended the JROTC academies, 77 percent were Hispanic, 11 percent were African American, ten percent were white, and 48 percent were female. The JROTC academies start in the 11th grade on the West Coast and in the 10th grade in the Midwest. Overall, the students in JROTC academies had lower performance levels at the time of referral when compared with the other groups, and almost half the levels of performance of students in other career academies and magnet schools.

Evidence of Effectiveness

Researchers compared students enrolled in the JROTC-CAs with those enrolled in other career academies, magnet schools, JROTC programs not related to the academies, and students in regular high school programs (the Midwest site had no other career academies). Their findings show that JROTC-CA students had:

- a mean GPA 40 percent higher than students in regular school and JROTC programs and similar to those of students in other career academy and magnet schools, despite their initial lower level of performance (at the Midwest site, the average GPA for JROTC-CA students was 2.39, for students in no special program was 2.05, and for those in JROTC programs outside the academies was 1.97)
- lower rates of absenteeism (at the first West Coast site, the absenteeism rate for JROTC-CA students was 11 percent compared with 15 percent for students in other career academy and magnet schools, 20 percent for students in no special program, and 21 percent for JROTC programs outside the academies)

- lower dropout rates (no students in any of the JROTC-CAs dropped out during the school year; at the second West Coast site, the dropout rate was 1.3 percent for other career academy and magnet students, 6.4 percent for students in no special program, and 4.4 percent for JROTC programs outside the academies)
- vearned more credits (at the first West Coast site, from a maximum of 55 credits per year, JROTC-CAs students earned 47.75 compared to 43.05 for other career academy and magnet schools, 35.33 for students in no special program, and 37.63 for JROTC programs outside the academies)

Key Components

The traditional career academy model includes these main components:

- a school-within-a school
- rigorous core academic curriculum that includes mathematics, English, social science and sciences
- vocational curriculum aiming to develop critical work-related skills integrated with the academic component
- employer involvement in designing the curriculum, providing equipment, serving as mentors to students, offering job opportunities and providing direct funding for the academy
- paid summer internships

To these components, the JROTC academies add:

- a one-hour course each week focusing on building civic values, responsibility, citizenship, discipline and leadership
- extracurricular activities, including drill team exercises
- summer camp for some students

The added components are taught by retired military instructors, who are hired by the school district and must report to the high school principal. The Department of Defense pays for JROTC students' books, supplies, uniforms and half of this instructor's salary.

Contributing Factors

Attractiveness of Dual Focus Program

Researchers are cautious to speculate on why students prefer the JROTC-CAs over other programs. They suggest that some students were attracted due to the combination of the JROTC military-style instruction with the vocational components associated with career academies. Some students may have enrolled because they did not meet the performance levels required for other career academy and magnet programs. In addition, many teachers and counselors focused on the military discipline aspect of the JROTC-CAs and assumed that the programs were appropriate for students who needed extra discipline. Teachers and counselors thus referred students with poor discipline, attendance and academic performance, including low grades and few earned credits to academies.

Nurturing Environment

Researchers did not find information leading them to believe that the JROTC-CAs' discipline, use of uniforms or other military-style elements played a role in the programs' success. However, they could not rule out these influences, except that the JROTC-CA students performed better than students in the regular JROTC programs. In focus groups, students mentioned that the major factor in their success was the nurturing environment provided by the academy. A survey done in 1996 showed that

JROTC-CA students were more positive than the students in the three comparison groups (see study methodology) about their classroom environment, teachers' interest in them, individual attention received, and the overall quality of their education.

STUDY METHODOLOGY

The study is a quasi-experimental design with multiple comparison groups nonrandomly chosen. The sites chosen for analysis were three schools with JROTC-CAs that were able to provide early and timely data and three schools chosen by school district officials as similar in population, but not having JROTC-CAs. The sample was adjusted for demographic and other variables. The almost 7,000 students included students in JROTC Career Academies and students in three comparison groups: (1) students in other academy or magnet programs in the target and other schools; (2) students in regular JROTC programs; and (3) students not enrolled in any special programs. Researchers collected school record data. A multiple regression model was used to test whether students in the JROTC academies performed better than students in other programs in a series of variables, such as absenteeism, GPA, dropout rates and credits earned. Researchers also used focus groups and a 1996 survey of JROTC-CA students.

EVALUATION FUNDING

U.S. Department of Defense.

GEOGRAPHIC AREAS

The research included four JROTC Career Academies on the West Coast and one in the Midwest. The locations were not identified.

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CollegeBound

A Summary of:

A NEW FIELD EMERGES: COLLEGE ACCESS PROGRAMS, June 1995 Center for Human Resources, Heller Graduate School, Brandeis University (Waltham, MA) by Lawrence Neil Bailis, Andrew Hahn, Paul Aaron, Jennifer Nahas and Tom Leavitt

Overview

College access programs are based on the assumption that the best way to help disadvantaged youth improve their lives is to ensure that they graduate from high school and go on to pursue a four-year degree. "Last-dollar" scholar programs have financial assistance for college as a defining characteristic (scholarships help students pay for any remaining costs of college after financial aid has been received) and also provide a four-year support structure to get students to seriously consider college, apply to college, apply for financial aid and actually attend college. Brandeis researchers studied seven college access programs, including Baltimore's CollegeBound program (hereafter BCB) which is the primary subject of this summary.

POPULATION

The five programs for which the evaluators had population numbers enrolled more than 76,600 high school students (35 percent of the high school students in the districts served by these programs). The programs served 34,378 seniors, 80 percent of the seniors in their districts. The majority of scholarship recipients were female. Race and ethnicity patterns varied: 87 percent of students in BCB and 54 percent in the Columbus program were African American. In Cleveland, African Americans and whites were about evenly split. In Boston, Asians made up the largest group of recipients, followed closely by African Americans. Hispanics also received 15 percent of the scholarship awards in Boston and 13 percent in Broward County, FL.

Evidence of Effectiveness

Brandeis researchers evaluated BCB through a qualitative effort involving interviews and focus groups and a quantitative effort to assemble and analyze data on the college attendance status of more than 400 former Baltimore high school seniors one year after their scheduled graduation from high school and additional data on their high school performances (including their grades and attendance rates). Analysis of data from BCB showed:

- relative to comparable Baltimore students, BCB's last-dollar scholars who attended the University of Maryland between 1989 and 1993 had a lower dropout rate (17 percent vs. 47 percent)

"The Baltimore CollegeBound evaluation described in this report provides the best empirical evidence thus far that a college access program can have a demonstrable impact on college attendance for some types of students at some types of high schools."
Brandeis University

- none of BCB's last-dollar scholars who entered Morgan State since 1990 had dropped out of college in the first three years, while between 16 and 31 of every 100 Baltimore City high school graduates attending college had dropped out

- improved odds of attending a four-year college, with specific odds depending on type of high school, student achievement and number of services received through BCB

To measure retention, evaluators looked at second-year scholarship renewal in Baltimore, Boston and Columbus. Of students who had received freshman year scholarships:

- in BCB, 45 percent of students were missing documentation for renewal
- in Boston, a high of 97 percent renewed in 1980 and a low of 85 percent renewed in 1990
- in Columbus, a high of 56 percent renewed in 1988 and a low of 17 percent renewed in 1989

Scholarships could be renewed if students and their counselors knew to submit and submitted the necessary documentation. In many cases scholarships were lost in the second year due to a lack of paperwork, thus affecting retention.

CollegeBound cost just over $600 per participant.

Key Components

BCB supports include:

- in class presentations for 9th and 10th graders, to motivate students to consider college as an option
- for 11th graders, counseling on an individual basis that helps with: college applications, applying for financial aid, the SAT or other achievement tests and applying to several different colleges

Money to pay for college is provided only to those students whose financial aid package does not cover their college tuition: it pays the difference between the financial aid and the full college tuition.

Contributing Factors

The Money

The Brandeis University evaluators found for the BCB that it is the prospect of the scholarship as much as the scholarship itself that affects student enrollment and retention in post-secondary education. Motivating youth to seriously consider college, learn about different schools, apply for admission and financial aid is greatly facilitated by the promise of funds. Students get discouraged quickly if they believe that they will never get enough financial aid to make all their efforts worthwhile. The actual amount of college tuition paid for by college access programs is limited to tuition not covered through other forms of financial aid. (See I Have a Dream, pp. 186-188).

Intensive, Individualized Counseling

To be successful, last-dollar college access programs have to provide more than just the money. The Brandeis study tracked students into college. In BCB, "[S]tudents who received counseling at neighborhood schools were considerably more likely to attend college and continue through to the end of their freshman year than those neighborhood school students who did not engage in these CollegeBound activities."

Poor Implementation Hurts

Many scholars in the college access programs evaluated did not submit documents for a second-year scholarship renewal because they did not know they could and/or because the college financial aid staff were not aware of the requirements. This suggests that college access staff in high schools must make a special effort to maintain communication with both scholarship students and college financial aid staff.

Flexibility to Adapt to Community Needs

Brandeis: "...ultimately, college access programs need to be tailored to the unique circumstances in each locality, including the current strengths and weaknesses of the local school system, the availability of resources to support college access programming and the unique opportunities that may be present as a result of talented individuals with the commitment necessary to fulfill the vision."

STUDY METHODOLOGY

Brandeis researchers conducted a literature review on college access programs in six sites, assembled summary statistics on basic program measures in the six sites plus BCB. Brandeis researchers also evaluated BCB through a qualitative effort involving interviews and focus groups and a quantitative effort to assemble and analyze data on the college attendance status of more than 400 former Baltimore high school seniors one year after their scheduled graduation from high school and additional data on their high school performances (including their grades and attendance rates).

EVALUATION FUNDING

Evaluation funded by Baltimore Community and Ford Foundations.

GEOGRAPHIC AREAS

Boston, MA; Broward County and Dade County, FL; Cleveland and Columbus, OH; Philadelphia, PA and Baltimore, MD.

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Gateway To Higher Education

A Summary of:

MAKE IT POSSIBLE FOR STUDENTS TO SUCCEED AND THEY WILL: An Evaluation of the Gateway to Higher Education Program, January, 1997 Education Development Center (New York, NY) by Patricia B. Campbell, Ellen Wahl, Morton Slater, Elisabeth Iler, Babette Moeller, Harouna Ba, and Daniel Light

Overview

Started in 1986, Gateway to Higher Education is a comprehensive four-year secondary school program administered through the City University of New York and operating in five New York City high schools. It aims to prepare students for higher education and for careers in science, medicine, and technology.

POPULATION

Gateway is aimed at students who are under-represented in mathematics, science and medical careers. To enter Gateway, students must be at the 50th percentile on New York City's Seventh Grade Math test and the Degrees of Reading Power test, have regular attendance, and generally have grades of 80 or better. Eighty-three percent of Gateway students are African American or Hispanic; about 60 percent are female. Through an analysis of students' zip codes and census data, researchers determined that the students come primarily from low- income or lower-middle income families. By the mid-1990s, Gateway was serving over 1,000 students per year in five high schools.

Evidence of Effectiveness

The evaluation compares the success of Gateway to national data regarding the participation of minorities in math and science studies. For example, the proportions of African Americans, Hispanics and Native Americans of the entire population who participate in the following are very low: undergraduate science and engineering degree recipients (11 percent), medical school entrants (14 percent), and medical degree recipients (11 percent). Similarly low are the proportions of African Americans and Hispanics among high school graduates (21 percent), bachelor degrees in science and engineering (10 percent), and doctorates in science and engineering (five percent). African American and Hispanic high school graduates are less likely than whites to earn high school credits in science and mathematics courses, less likely than whites to score at the proficient level on the National Assessment of Educational Progress (NAEP) science and mathematics tests (when they are 13 to

"On the one hand, these results should not be surprising, given that Regents course-taking and exam-taking are a required part of the Gateway program. On the other hand, it is noteworthy that students accepted this requirement, succeeded in these courses, and stayed on the college track while their control group counterparts, with ostensibly equal potential, exhibited a very different course-taking pattern and path toward post-secondary education."

EDC

17 years old), and score lower than white and Asian American students on both the verbal and math portions of the SAT and on science and math achievement tests.

Gateway evaluation data is reported in terms of course-taking, test-taking, standardized test scores and grades, graduation and postsecondary attendance and retention compared to the overall high school population, a comparison group of New York City students, and to subgroups.

Course-taking (in 1992):

- Gateway students were much more likely to take advanced math and science courses than were high school graduates in general (98 vs. 52 percent took "Math III").
- Gateway students were much more likely than all 1992 high school graduates to have taken chemistry (97 vs. 56 percent) and physics (83 vs. 25 percent).
- African American Gateway students were much more likely than all 1992 African American high school graduates to have taken chemistry (95 vs. 46 percent) and physics (90 vs. 18 percent).

Test-taking:

- Gateway students took the state-wide Regents exam at a much higher rate than other New York City high school students (e.g., 96 vs. 24 percent took the Chemistry Regents Exam; 76 vs. 14 percent took the Physics Regents Exam).
- Gateway students were more apt to take the SAT test (93 vs. 15 percent of the comparison group took the SAT at least once).
- Sixty-two percent of Gateway students took the SAT II Biology Achievement Test and 54 percent took the SAT II Chemistry Achievement Test.
- In the 1994-95 school year, 37 percent of the eligible Gateway students took the Advanced Placement (AP) Biology Exam; and ten percent took the AP Chemistry Exam.

Standardized test scores:

- Gateway students had relatively high scores on Regents Exams (from a low of 70 in Physics to a high of 81 in Math I).
- Gateway students' SAT scores exceeded the national average. SAT: Mathematics 486 vs. 423 and SAT: Verbal 444 vs. 413; higher average mathematics and verbal combined scores (930 vs. 836).
- Gateway student scores were nearly 200 points higher than the mean 1993 SAT scores for African American students (SAT: 741, SAT M: 388, SAT V: 353) and the mean 1993 scores for Puerto Rican students (SAT: 762, SAT M: 409, SAT V: 353).
- Gateway students scored lower on the SAT Achievement Tests (a mean score of 496 vs. 558 for all, 491 for African American students and 518 for Puerto Rican students on the Biology test and a mean score of 467 vs. 582 for all, 514 for African American students and 523 for Puerto Rican students on the Chemistry test). [EDC: It is not clear why Achievement Test and Chemistry AP exam scores (below) were low. The data offered no clues, and the program directors had no definitive explanations to offer; they will use these findings to inform further program development and evaluation.]
- Gateway students' mean Biology AP score was 3.29, which was higher than the 1993 mean score of 2.98 for all Biology AP students, and higher than the mean score of 2.11 for African American students and 2.62 for Puerto Rican students.

- Gateway students' mean AP Chemistry score was 2, lower than the national mean of 2.86 and the mean score for Puerto Rican students (2.3), but at the same level as the mean AP Chemistry exam score for African Americans (2.02).

Grades, Graduation and Postsecondary Attendance and Retention:

- Gateway students maintained relatively high course grades (between 83 and 85).
- Gateway students who entered in 1989 were more apt to graduate from high school relative to the matched comparison group (93 vs. 73 percent).
- Ninety-two percent of Gateway graduates went to college (eight percent to Ivy League schools; four percent to competitive technical schools; 39 percent to other private, four-year institutions). Of 177 former Gateway students who graduated in 1990 and 1991 and responded to a survey, 94 percent either graduated from college or are continuing toward a degree and 52 percent remain in the math, science, or engineering/ technology fields.
- Of the 1,753 students who entered Gateway since its inception in 1986, 18 percent have dropped out of the program.

Interviewers of Gateway students found them motivated, confident and competent. They also tend to be very engaged in their communities, taking on leadership roles.

Gateway costs $1,600 more per student per year than the mean New York City per pupil expenditure (mean not given in report).

Key Components

Each Gateway school has a coordinator and a team of teachers who stay with the students throughout their four years. The program is based on a strong belief that high expectations for all students, a demanding curriculum and a strong support system can lead to student success. Gateway features:

- an extended school day, including a double period of mathematics or science with a laboratory component and after-school tutorials
- an extended school year (11 months), including a month-long summer program for students entering the ninth grade and academic summer programs for juniors and seniors at high-level universities and research institutes
- classes composed solely of Gateway students, especially in mathematics and science, with a maximum enrollment of 25 students
- four years of regents-level science, mathematics, social science, foreign language courses and an average of three Advanced Placement courses for all Gateway students

> *"Gateway requires students to engage in rigorous academic content and to avail themselves of ancillary opportunities such as internships, tutoring, and college visits. It provides guidance and resources (such as paying for the SAT) so that students stay on track to higher education."*
>
> *EDC*

- the expectation that all Gateway students will take the SAT
- information about college, beginning in the ninth grade, including an annual college fair and seminars for parents
- other enriching activities: exposure to professionals in science; field trips to museums, the theater, opera and symphonies; and after-school experiential internships

Contributing Factors

Systemic Reform

EDC: "While high expectations for all students have been part of the rhetoric for several decades, until recently, responsibility for success was still laid mainly on the student and barely on the system. Gateway was developed based on the assumption that responsibility for success needs to be equally shared by the student and the system ..."

Staff Qualifications

Teachers for Gateway are carefully selected, based on their qualification to teach the assigned course, their teaching experience, their willingness to put in the time and effort required to push Gateway students, and their ultimate belief that the students can succeed.

Focusing Limited Resources

EDC: Program developers "viewed the Gateway approach as a necessary step along the way to more major change, and they put their energy into strategies they believed were likely to produce immediate results for the current population of students." Once these results were gained (and they were gained the very first year of the program), it was much easier to engage teachers in continuing development.

Caring Adults

EDC: "Gateway students, teachers, and directors talked about the sense of connectedness they enjoy as part of a small entity within a large institution, how teachers know what is going on with all their students and make sure they don't get lost or off the track, the commitment above and beyond their contract that Gateway teachers invest, and the opportunity that teachers have to talk with each other and be part of a team of educators."

Other Factors

Other factors contributing to Gateway's success are high expectations, a peer culture supportive of achievement, appropriate equipment in laboratories, and information about college admission.

STUDY METHODOLOGY

Researchers compared outcomes for Gateway students to those of a comparison group of non-Gateway students matched according to gender, race/ethnicity, and math and reading scores. Each of the comparison students met the academic criteria for eligibility for Gateway. Researchers also analyzed an existing database, conducted a series of interviews and focus groups with program participants and graduates, visited the five Gateway high schools, interviewed college admissions staff, and administered a survey to 1990 and 1991 Gateway graduates. They also compared SAT and Achievement test scores of Gateway students with national averages.

EVALUATION FUNDING

Evaluation funded by Aaron Diamond Foundation.

GEOGRAPHIC AREAS

Gateway operates in five New York City public high schools.

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High Schools That Work

A Summary of:

MAKING HIGH SCHOOLS WORK: Through Integration of Academic and Vocational Education, 1992, by Gene Bottoms, Alice Presson and Mary Johnson

"SEVEN MOST IMPROVED *HIGH SCHOOLS THAT WORK* SITES RAISE ACHIEVEMENT IN READING, MATHEMATICS, AND SCIENCE," 1995, by Gene Bottoms and Pat Mikos (High Schools That Work, A Report on Improving Student Learning)

Overview

The High Schools That Work (hereafter HSTW) initiative was launched by the Southern Regional Education Board (hereafter SREB) in 1987 to ensure that all students in participating schools and school districts, including those who do not plan to pursue a 4-year college degree, are prepared to enter the competitive workforce. HSTW is a full-school reform initiative that changes what children are taught, how they are taught, and what schools expect of them, including improving how academic and vocational teachers relate to each other and to their students. HSTW is especially designed to raise the achievement levels of career-bound high school students.

POPULATION

HSTW is aimed at making sure the "forgotten half" of students learn and achieve at the same levels as those planning for college. SREB defines career-bound high school students as the 60 to 70 percent of students who plan to work after high school, attend a two-year college or enter the military. These students do not plan to attend college, but may make a decision to attend a four-year college at a future time. At SREB schools, in 1993, 31 percent of students were minorities. SREB collected data on education of parents: 23 percent had college degrees, 23 percent had more than a high school education, 39 percent had a high school diploma and 13 percent had less than a high school education.

Evidence of Effectiveness

All 650 HSTW sites (both schools and school districts) in 21 states commit to "closing the gap" between achievement levels of career-bound young people and college-preparatory students and agree to participate in a common assessment process which includes pre- and post-scores on tests similar to those used by the National Assessment of Educational Progress (hereafter NAEP) and student

"The vocational curriculum's potential for advancing the academic achievement of career-bound youth is often underrated. Vocational teachers who concentrate on vocational skills only, while expecting others to teach academic skills, are short-changing their students."

SREB

and faculty surveys. Site data is broadly shared among sites and sites are compared against themselves and against NAEP data to measure success at meeting HSTW goals. SREB chose to report data showing improvement over time (from 1990 to 1993) in student outcomes from seven HSTW schools which improved the most. These schools:

- increased scores by 65 percent in reading, 36 percent in math and 70 percent in science
- increased the percentage of students taking four or more full-year courses in mathematics (32 to 40 percent)
- increased student mathematics scores even as students took more challenging courses (294.1 to 299.132 on NAEP-like tests)
- increased the vocational credits of career-bound students from 6.0 to 6.6 credits
- increased the percentage of students who completed four credits in a planned career major from 63 to 67 percent
- increased the average total credits earned from 23.6 to 24.5 credits
- made vocational courses more challenging and placed greater emphasis on getting students to use academic content and skills in vocational studies. [From 1990 to 1993, students at these schools reported that their vocational teachers more often stressed reading (46 vs. 55 percent), mathematics (54 vs. 64 percent) and science (26 vs. 39 percent).]
- reported increases in the percentage of students receiving extra help from family (48 to 58 percent), mathematics teachers (60 to 73 percent), vocational teachers (21 to 37 percent), resource teachers (3 to 11 percent), tutors (8 to 17 percent)

SREB also compared practices at high achieving HSTW schools with practices at low achieving HSTW schools (often those newly on board) with the expectation that these practices contributed to the better schools' higher levels of achievement. Students at the most-improved schools, compared to students at the newest HSTW sites, reported:

- vocational teachers stressed reading (55 vs. 42 percent), mathematics (50 vs. 39 percent) and science (39 vs. 23 percent)
- academic teachers related academic content to real-world applications (75 vs. 67 percent); used mathematics to solve work-related problems more than twice a year (51 vs. 43 percent); related science to the real world weekly (78 vs. 70 percent)

courses were challenging and exciting (70 vs. 54 percent), they were encouraged to take mathematics and science (67 vs. 46 percent), they took mathematics in their senior year (50 vs. 40 percent) and science in their senior year (37 vs. 30 percent)

Key Components

Each HSTW site has, or aims to have, the following characteristics:

- high expectations of students in both academic and vocational classes
- vocational courses emphasizing students' communication, math, and science competencies

"Schools making the most progress in High Schools That Work motivate students by establishing higher standards and getting students to work harder and longer to meet them. At most American high schools, time is fixed and standards are flexible. HSTW's most-improved schools reverse the process by setting high standards and providing extra time and help for students to meet them."

SREB

- academic courses teaching concepts from the college preparatory curriculum through functional and applied strategies
- elimination of the general track
- all students complete a challenging program of study, including three courses in math and three in science (with a least two credits in each course equivalent in content to courses offered in the college preparatory program) and are actively engaged in the learning process
- a structured system of work-based learning
- vocational and academic teachers working together to integrate academic and vocational curriculum and instruction and receiving staff development, materials, and time to work together
- guidance and counseling services, including parent involvement
- a structured system of extra help to enable career-bound students to complete an accelerated program of study that includes high-level academic content and a career major

> *"Students in general and vocational programs of study deserve a better deal than they are getting. They are entitled to just as much encouragement, rigorous coursework, faculty guidance, planning, and evaluation as students preparing for a four-year college or university. They are not just the majority in high school; they represent the majority in the work force as well."*
>
> *SREB*

- student assessment and program evaluation (using data to continuously link school and instructional practices to improved student learning)

The seven most-improved sites vary in location, size, student characteristics and types of programs offered. One school belongs to the nation's 10th largest school district, four schools have fewer than 1,000 students, two have between 1,000 and 1,500, and one has over 1,500. Five of the seven sites are ethnically diverse, enrolling a minority student population of 24 to 56 percent. Five are comprehensive high schools, one is a technical high school, and the seventh is a high school working with an area vocational center. All seven most-improved schools use applied learning materials developed by the Center for Occupational Research and Development (CORD) in Waco, Texas, as stand-alone courses or as part of regular college preparatory mathematics and science courses.

Contributing Factors

Quality of Implementation

Implementing the key practices identified by SREB for HSTW sites—high expectations; increasingly challenging and integrated academic and vocational studies; a structured system of work-based learning; vocational and academic teachers have time, materials and encouragement to work together; advising system including parents; extra help; student assessment and program evaluation—led to the most improvement on achievement levels in reading, mathematics and science.

High Expectations

SREB: "Students achieve at a higher level if they are required to simulate and use information, manipulate abstract concepts, perform complex calculations, and solve practical problems. Students also make more gains if they use technology in their studies." At the most-improved schools "English teachers ... required [students] to make oral presentations, state and defend opinions, compare ideas, write research papers, and read books outside of class."

Integrated Curriculum

More students in high achieving schools read technical materials, solved mathematics problems related to their vocational studies, and completed projects assigned jointly by their vocational and academic teachers.

Academic teachers at the most-improved schools used applied learning strategies to teach mathematics, science and English to career-bound students.

Eliminate the General Education Track

SREB: "Schools that have made the most progress in raising expectations have replaced general mathematics, general science, and low-level English with courses that contain rigor and relevance to work and further study."

Guidance/Support

SREB: "Sites that made the most improvement ... offer a guidance and advisement system to help students plan and pursue a challenging program of study. Teachers and parents participate actively in the process by helping students choose courses and understand the importance of a demanding program."

Extra Help and Time

SREB: "Schools that make gains in student achievement do more than enroll students in college preparatory courses, hold them to high standards, and get them to work harder and longer. They give students extra help and time to meet more demanding requirements." Extra help comes from mathematics, vocational and resource teachers, tutors and family.

STUDY METHODOLOGY

For analysis, SREB uses data from student and faculty surveys designed to capture perceptions about high school and a one-year follow-up survey of high school graduates; NAEP-type test data on student achievement in reading, mathematics, and science; an analysis of transcripts to link student achievement to the number and types of courses taken in high school; and site-visits.

EVALUATION FUNDING

Both reports by Southern Regional Education Board, Atlanta, GA.

GEOGRAPHIC AREAS

Established in 1987, HSTW has now grown to over 650 sites in 21 states: AL, AR, DE, FL, GA, HI, IN, KS, KY, LA, MD, MA, MS, NC, OK, PA, SC, TN, TX, VA and WV.

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Hoke County High School: North Carolina

A Summary of:

HOKE COUNTY HIGH SCHOOL, RAEFORD, NORTH CAROLINA: A Case Study of High Schools That Work, 1996, Prepared by Southern Regional Education Board (Atlanta, GA)

Overview

Hoke County has the third lowest per capita income in North Carolina. In 1993-94, the school ranked last among the state's 121 school districts in per pupil expenditures. That year, Hoke County High School was declared a "low performing" school and the state threatened to take over the district if it did not make significant improvements. At about the same time, the school was selected to participate in the *High Schools that Work (HSTW)* program of the Southern Regional Education Board (SREB). In their application to SREB, teachers proposed to revise the curriculum to ensure more rigorous content and to strengthen the teamwork of academic and vocational teachers. As a result of the efforts of faculty and staff, student learning improved substantially. After its 1996 assessment of student achievement in reading, mathematics and science, SREB named Hoke County High School one of the most improved sites in the 22-state *HSTW* network.

POPULATION

Hoke County High School is a comprehensive high school serving 1,350 students in grades 9 through 12. The student body is 55 percent African American, 25 percent Native American, and 20 percent Caucasian. Because of the school's proximity to a military base, many of the students are transient. Seventy-three percent of Hoke County students qualify for free or reduced-price lunches compared to 40 percent statewide.

Evidence of Effectiveness

A comparison of student records between 1993 and 1996 showed that:

- at least 90 percent of career-bound students had taken Algebra I, Geometry and Algebra II in 1996, while in the 1993 class only 37 percent had taken Algebra I, 57 percent Geometry and 42 percent Algebra II
- 85 percent of the 1996 class took college prep biology compared with 37 percent in 1993
- students who completed SREB's recommended academic core increased from 33 percent to 80 percent in English, from 64 percent to 98 percent in mathematics, and from 39 percent to 93 percent in science

In addition, in 1996:

- 53 percent of the students reported being college-bound compared to 20 percent in 1990
- 120 students took the SAT and achieved an average score of 841 compared to 94 students in 1994, with an average score of 773
- students used mathematics as it is applied in the workplace and prepared more written reports on science projects

Key Components

Using the *HSTW* key practices as a framework, Hoke County High School teachers and staff identified the following priorities:

- getting academic and vocational teachers to raise expectations and work together to integrate learning
- replacing low level courses, particularly in the areas of mathematics, science and English, with more rigorous courses and increasing the range of academic courses offered
- strengthening vocational courses through the use of internships and job shadowing and dropping courses that do not meet industry standards, while adding technology courses, upgrading the welding and drafting programs, and placing additional emphasis on engineering-related courses
- assisting and encouraging students who are not prepared for the more rigorous courses by adopting the STAR (Short Term Achievement and Reward) program, a nine-week program supplemented, if necessary, by after-school classes and summer school
- revamping the school schedule with a block schedule designed to provide more time for integrated projects and labs
- strengthening career guidance through visits of high school counselors to the middle schools to work with students and their parents in designing a program of study
- enhancing staff development, with particular emphasis on educational technology

The philosophical statement that underlies Hoke County improvement efforts is: "All students are capable of success if instructed in the learning style that suits them best, whether hands-on, theoretical or some combination."
Southern Regional Education Board

Contributing Factors

Financial Support from the State

Both incentive grants and Tech-Prep funding from the state enabled the district to provide training and resources for staff development.

Teacher Collaboration

School staff worked toward building teacher support for the integrated learning program. The teachers were organized into teams consisting of academic and vocational teachers and competed with each other to design integrated projects. The winning teams received support to implement the projects.

Employer Involvement

The teachers visited work sites to become more familiar with the skills needed by employers. Employers visited the school to discuss workplace requirements with students.

STUDY METHODOLOGY

The Southern Regional Education Board (SREB) uses data from student and faculty surveys, course enrollment data and follow-up studies of high school graduates. Scores on achievement tests in reading, mathematics and science are compared over time. For more information on *High Schools that Work*, see pages 26 - 29 of *Some Things DO Make a Difference for Youth*.

GEOGRAPHIC AREAS

Raeford, Hoke County, North Carolina.

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Additional Resource: *Bottoms, Gene (1999).* Update: Experienced HSTW Sites Show Improvement on the 1998 Assessment; More Work Needed. *Atlanta, Georgia: Southern Regional Education Board. This article provides information on the academic achievement gains of 24,000 students at 444 experienced HSTW sites (of about 850 total schools in 22 states) between 1996 and 1998. The percentage of students who met HSTW performance goals went up from 43 to 51 percent in reading, from 44 to 58 percent in mathematics and from 38 to 53 percent in science. Percentages of students at these sites completing the HSTW-recommended rigourous academic curriculum areas rose from 1996 to 1998: from 38 to 58 percent in science, 33 to 39 percent in English and 66 to 79 percent in mathematics. However, Bottoms was discouraged that only 28 percent of students took the recommended academic core in all subjects.*

I Have A Dream: Chicago, IL

A Summary of:

THE ROLE OF SOCIAL CAPITAL IN YOUTH DEVELOPMENT: The Case of "I Have a Dream", to be published in 1999 in *Educational Evaluation and Policy Analysis*, by Joseph Kahne and Kim Bailey, University of Illinois at Chicago

Overview

"I Have a Dream" (IHAD) is a youth organization providing financial, academic and social support to inner-city public school students throughout the country. Local sponsors, generally wealthy families, adopt an entire class of sixth graders, randomly chosen, and guarantee "last dollar"[1] scholarships for all those who graduate from high school. Besides maintaining personal relationships with the "Dreamers," the sponsors hire a project coordinator to facilitate and coordinate services, such as tutoring, employment, volunteering activities, counseling, health and social services. In the two case studies, the coordinators were helped by volunteers from a Princeton program and AmeriCorps members. The premise is that, with personal support and financial resources, inner-city youth will be able to pursue postsecondary education and/or be better prepared to succeed in the workplace. For another study of IHAD, see *Some Things DO Make a Difference for Youth*.

POPULATION

"I Have a Dream" serves inner-city children, from sixth grade until their graduation from high school. The study focuses on two programs in Chicago. La Familia was based on a youth organization on the city's West Side and served 52 Dreamers. Of these, 31 were Mexican American, 14 Puerto Rican, five bi-racial, one white and one African American. The majority were female (56 percent) and for more than 70 percent, both parents had not completed high school. Seventy percent had families with incomes below $20,000. Ninety-four percent of the initial Dreamers stayed in the program until graduation. Project Success was located in a church on the South Side of Chicago and served 40 Dreamers, all African Americans. Fifty-eight percent were women. The mothers of 55 percent of the group had some high school education (the researchers could not gather reliable data on more than half of the fathers). Eighty percent lived in families with incomes below $20,000. Ninety percent of Project Success' Dreamers stayed in touch with the program beyond graduation.

Evidence of Effectiveness

Researchers compared Dreamers to students from previous sixth grade classes at the same schools who had not participated in the program. When compared to the control groups, Dreamers showed:

- higher graduation rates from high school (graduation rates for Dreamers were 71 and 69 percent, double the 37 and 34 percent rates for the control groups; 6 percent of the Dreamers in the West Side program passed the GED)
- higher enrollment rates in two- and four- year colleges (63 and 67 percent of the Dreamers enrolled in college, almost three times the control group rate, estimated at 20 and 18 percent)

Of the Dreamers who went to college, 78 percent enrolled in 4-year institutions.

Key Components

The programs are tailored to the needs of the individual Dreamer. Key components, common to all programs, are:

- long-term personal relationships (the project coordinator and the sponsors maintain personal contact with the Dreamers throughout the duration of the program and, in many cases, even after the Dreamer enters college)
- working with the families (services are procured not only for the Dreamers, but also for their families, when needed; despite some conflicts with a few parents, mostly on issues of values, the relationship between staff and families tended to be supportive)
- linkage to existing community services (Alcoholics Anonymous, battered women's shelters, foster care, legal services, planned parenthood, summer jobs, homeless shelters, etc.)
- help with finding jobs and enrichment programs
- focus on peer support to promote and maintain pro-social behaviors
- academic support through tutoring and mentoring accompanied by high expectations (some Dreamers were transferred to private schools, paid by the sponsors, because staff felt that they were not receiving adequate attention and guidance in the public schools or because of gang-related problems)

The average cost per student per year for six years was $1,482 for the program on the city's West Side and $2,829 for that on the South Side. Private school tuition represented 19 percent and 55 percent of the cost respectively. To help improve public schools in inner city areas, the IHAD Foundation is developing a charter school, one sponsor has initiated a comprehensive neighborhood development program, and another IHAD group has initiated a publicly-funded school that provides after-school programs.

Contributing Factors

Building Social Trust

Time is important to build trust among inner-city youth. By accompanying the students from the sixth grade, the project coordinator has time to build strong relationships with Dreamers. Project coordinators for both programs remained in touch with at least 90 percent of their original Dreamers three or more years after they had left the program.

Relationships as Vehicles for Support

Inner-city youth generally deal with social pressures that tend to undermine success. The majority of Dreamers were victims of physical, sexual or substance abuse in the home and/or had participated in gang activities. Interviews indicated that a trusting relationship with IHAD staff helped Dreamers deal with such major concerns. Relationships with staff and sponsors were also an important tool for job opportunities and access to services and programs.

Implementation Quality

IHAD's major challenge is to hire staff able to provide the intense support and commitment required by the target population. Studies of other IHAD programs that did not show graduation rates as high as these indicate that more successful programs have low turnover of project coordinators, work with both private and public schools, and benefit from volunteer help. In the case studies, AmeriCorps members and volunteers from the Princeton Project 55 Program added two full-time staff members to each of the two programs. These individuals added extra hours of staff work, besides offering more opportunities for Dreamers to establish meaningful relationships (some volunteers were able to establish positive interactions with Dreamers who were resistant to approaching the IHAD coordinators).

STUDY METHODOLOGY

Researchers studied two IHAD programs for two and a half years and used a sixth grade class at the Dreamers' schools that had not been part of the program as a control group (assignments were randomized). The programs were chosen because they were consistent with the IHAD model, maintained contact at least with 90 percent of the Dreamers and their Dreamers were already making the transition to college. Researchers interviewed Dreamers, staff, parents and sponsors, observed program operations on over 100 occasions, ran focus group sessions with staff, sponsors and students, conducted surveys, and used school records to obtain data for Dreamers and the control groups.

EVALUATION FUNDING

Steans Family and Polk Brothers Foundations, The Chicago Community Trust and the Center for Urban Educational Research at the University of Illinois at Chicago.

GEOGRAPHIC AREAS

Both programs are located in Chicago, IL.

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1. *the sponsor pays for college costs above those covered, for example, by grants and other scholarships.*

Maryland's Tomorrow

A Summary of:

MARYLAND'S TOMORROW HIGH SCHOOL PROGRAM OUTCOME EVALUATION: Cohorts I, II, and III, February 1995 Maryland State Department of Education, Division of Planning, Results, and Information Management

MARYLAND'S TOMORROW: Lessons Learned, July 1996, Institute for Policy Studies, The Johns Hopkins University by Marion Pines, Laura Noffke and Ann von Lossberg

Overview

The Maryland's Tomorrow high school program (hereafter MT) is a large-scale, state-wide dropout prevention effort operating in 75 high schools across Maryland. Central goals of MT are dropout prevention and improved passing rates on the Maryland Functional Tests (hereafter MFT) for students who are more at-risk than the general school population. MT services begin the summer before ninth grade and continue year-round for five years, including summers and transition services for the year following graduation.

POPULATION

Ninth through 12th grade students in the State of Maryland who are "at-risk of dropping out of high school" (who are one year behind in mathematics or reading and/or were retained in grade at-least one year prior to 9th grade). MT serves approximately 7,500 students annually. In 1992-1993, MT students were 41.6 percent Caucasian, 54.5 percent African American, 3.9 percent Hispanic, American Indian and Asian/ Pacific Islander, 57.7 percent male, and 42.3 percent female. (Demographics have remained roughly constant since 1992.)

Evidence of Effectiveness

The 1995 comparison group evaluation of MT by the Maryland State Department of Education examined the largest 27 of the 75 MT programs and found:

- MT students had higher graduation rates and lower dropout rates than comparison group students in more than half of the programs studied.
- In the first three cohorts, there was a 27 percent decline in the number of dropouts. These three cohorts produced 1,393 graduates. According to the comparison groups' performances, if MT services had not been provided, only 1,242 would have graduated.
- Performance on the Maryland Functional Tests improved in each of the three cohorts. The third cohort of MT students outperformed comparison students in 100 percent of the 27 evaluated schools. The percentage of MT participants passing all the Maryland Functional Tests also increased for each of three cohorts (Cohort I: 78 vs. 62 percent of comparison students; Cohort II: 86 percent; Cohort III: 97 percent). Test scores also went up as MT participants progressed from the 9th to 11th grades.

- 9th and 10th grade GPAs were higher for MT participants than comparison group students in a majority of schools in all three cohorts. In Cohorts I and II, however, 11th and 12th grade GPAs were lower for MT participants than for comparison group students in over half of the schools.

MT programs are held strictly accountable through a Performance Management System that sets expectations for annual improvements in MFT pass rates, dropout rates, attendance, and credits earned. Annual performance outcomes are measured and an annual "report card" is issued for each of 75 programs indicating three years of trend data. MT student performance in each program is compared to all students in the school that hosts that MT program.

Based on annual MT performance data statewide:

- The school dropout rate of MT participants went down each year over a four-year period from a high of 6.52 percent in 1992-93 to 4.70 percent in 1995-96. (This brings the dropout rate for MT's at-risk participants close to the state dropout rate of 4.58 percent for all students).

MT costs approximately $1,200 per student per year of state and Job Training Partnership Act (hereafter JTPA) education set-aside funds. MT is funded primarily by the State of Maryland, with a commitment of close to $10 million a year, augmented by JTPA "8 percent funds" and local contributions. The funds go directly from the Maryland State Department of Education to the 12 Service Delivery Areas/Private Industry Councils which develop partnerships with the local school districts for program implementation.

Key Components

MT has moved from serving 100 summer students in one city (in 1985) to a year-round, state-wide dropout prevention/intervention strategy serving approximately 7,500 annually, for a period of five years. Students are involved in MT from the summer before entering ninth grade to the year following graduation from high school. MT programs serve from a few to over 300 students annually in each of 75 schools, in all 24 state jurisdictions. Some counties have small programs in every school and others have large programs in only a few of their schools.

Each MT program includes:

- case management, counseling and continued high level support
- intensive academic instruction during the summer and school year

"Dropout intervention works in Maryland. Hundreds of Maryland's Tomorrow graduates who were previously slated for failure have come to lead productive lives beyond their greatest expectations."
Institute for Policy Studies

- career guidance and exploration (career counseling and transition services for five years)
- summer activities, including subsidized and private employment, community service, college camps, trips, workshops, and creative arts competitions
- personal development
- skills development
- peer support
- adult mentors

Some of the most intensive MT programs operate as "school-within-a-school"-type programs with small MT classes and flexible schedules. Other sites may provide pull-out services, and many sites make use of home visits and intensive parent involvement.

Contributing Factors

Caring Adults

MT serves as a "safe haven" for students through caring staff who take a special interest in each student. This is especially important for 9th graders, who often feel fearful and isolated in a new school. These caring adults hold MT students responsible for their actions through a strict attendance and grade monitoring system to make sure students stay in school and on-track for graduation. Personalized follow-up, sometimes highly individualized and intensive, extends for a year after graduation.

Long-term, Continuous Services

MT works with students for five years, from the summer before 9th grade until a year after high school graduation. Summer services ensure year-round contact.

> *"The single most important component of success found across three Maryland's Tomorrow programs (selected for in-depth analysis) was consistent, caring adults. ... Consistency ... is critical. At-risk students do not need to become attached to someone, only to have that person slip out of his life. This chaotic pattern too often mirrors the past and can be debilitating to the students."*
>
> *Institute for Policy Studies*

Sound Implementation

MT program implementors are provided with a combination of flexibility (through self-assessment and technical assistance) and accountability (through the Performance Management System) which allows for quality implementation. The cooperation of faculty, administrators, and parents also contributes to sound implementation.

STUDY METHODOLOGY

The Maryland State Department of Education evaluation compared academic achievement and dropout outcomes for the first three cohorts of students in MT ('88/89, '89/90, '90/91) in 27 schools to a comparable group of students in the same schools. MT students were tracked from ninth grade through high school graduation. Data on comparison groups at each school were gathered from school records. Data on MT participants were provided by the MT MIS system managed by the Institute for Policy Studies at Johns Hopkins and the Maryland Department of Labor, Licensing and Regulations.

EVALUATION FUNDING

Evaluation conducted and funded by Maryland State Department of Education. Descriptive report funded by Maryland State Department of Education.

GEOGRAPHIC AREAS

There are MT programs in 75 high schools across the State of Maryland, with a program in each of the 24 state jurisdictions.

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Quantum Opportunities

A Summary of:

EVALUATION OF THE QUANTUM OPPORTUNITIES PROGRAM (QOP): DID THE PROGRAM WORK? June 1994, by Andrew Hahn, with Tom Leavitt and Paul Aaron

QUANTUM OPPORTUNITIES PROGRAM: A BRIEF ON THE QOP PILOT PROGRAM, September 1995 Both studies conducted by Center for Human Resources, Heller Graduate School, Brandeis University (Waltham, MA)

Overview

The Quantum Opportunities Program (hereafter QOP) was a year-round, multi-year, comprehensive service program for disadvantaged youth (all from families receiving food stamps and public assistance) launched in five communities in 1989. Twenty-five disadvantaged students in each community were randomly selected to enter the program beginning in ninth grade and continuing through four years of high school. QOP was operated by community-based organizations in the five communities served (Opportunities Industrial Centers in four sites; Learning Enterprise in Milwaukee). QOP was focused around education activities (tutoring, homework assistance, computer-assisted instruction) and development activities (life and family skills, planning for the future including postsecondary education and jobs). Community service was also stressed. Community agencies provided service after school on their premises and, in some cases, in school settings (where the schools provided time and space). Young people were provided with caring adult mentors who stuck with them over four years, no matter what.

POPULATION
QOP students were selected randomly from families receiving public assistance in each of the five project cities. Eighty-six percent were ethnic minorities and only 9 percent lived with both parents.

Evidence of Effectiveness

Brandeis researchers evaluated four QOP sites. Relative to a control group, QOP students:

- graduated from high school more often (63 vs. 42 percent)
- dropped out of school less often (23 vs. 50 percent)
- went on to postsecondary education more often (42 vs. 16 percent)
- attended a 4-year college more often (18 vs. 5 percent)
- attended a 2-year institution more often (19 vs. 9 percent)
- became teen parents less often (24 vs. 38 percent)
- more often: took part in a community project in the six months following QOP (21 vs. 12 percent); were volunteer tutors, counselors or mentors, (28 vs. 8 percent) and gave time to non-profit, charitable, school or community groups (41 vs. 11 percent, only statistically significant at the Philadelphia site)

The effects of QOP increased over time, as measured at the end of each high school year. After the first year, there were no significant differences seen between the QOP and control groups in the 11 academic and functional skill areas measured. After two years, scores of QOP participants were higher in all 11 areas, and the difference was statistically significant in five areas. By the time QOP students and control sample were leaving high school in 1993, QOP student group scores in all 11 areas were much higher than control student scores, and the differences were statistically significant in every area.

There was wide variation among the program sites. One of the five original sites, Milwaukee, was dropped from the evaluation after problems with implementation and follow-up. Of the remaining four, Philadelphia had the most significant outcomes. For example, the rate of 4-year college attendance was nearly three times higher than the rate in San Antonio, five times higher than Oklahoma City, and eight times higher than Saginaw. Researchers noted that at the Philadelphia site, staff developed and maintained strong bonds with the QOP students, and were able to forge a cohesive group identity.

The Ford Foundation forward funded QOP at $1.3 million for four years. The evaluation's cost/benefit analysis showed that QOP cost $10,600 per participant over the *four* year period and that $3.68 was gained for every dollar spent if QOP college students earned a degree. Even if only one-third of QOP college students ultimately received degrees, the benefit-cost ratio was $3.04 for every dollar spent.

Key Components

QOP also featured financial incentives for participants and staff. Students received small stipends for participating in program activities (starting at $1 per program hour, and rising to $1.33) and bonuses for completing activities ($100 for every 100 program hours). They also received a matching amount in an account that could be used only for post-program activities, such as college and training.

> *"In contrast to most youth programs in the 'add-on' or 'second-chance' tradition, QOP was designed to encourage long-term involvement through an array of services. Meaningful relationships with adults would be encouraged without fear of having bonds abruptly severed when the programs ended."*
>
> *Brandeis University*

Contributing Factors

Caring Adults

Brandeis: "If young people are connected with caring adults for sustained periods of time, year-round, positive results do emerge." Program administrators and staff, as well as teachers and mentors, took an active interest in the welfare of the QOP students, encouraging them, visiting them, following up and doing everything they could to keep them in the program. "Once in QOP, always in QOP" was the unofficial motto, and most program counselors took it to heart.

> *"Simply put, when a quantum opportunity was offered, young people from public assistance backgrounds--African American males, females, whites, Asians, others -- took it! They joined the programs and many stayed with the programs or the staff associated with the initiatives, for long periods."*
>
> *Brandeis University*

Sense of Community

The project sites were small, with only 25 students in each. Students were able to bond with each other and with adults in the program, particularly at the Philadelphia site.

Multiple Services Encompassing All Aspects of Youths' Lives

The QOP program was designed to address the many challenges and obstacles that disadvantaged youth face. QOP focused on developing basic skills (academic and functional) for future success, strengthening life and social skills to make better choices and operate more effectively with families and peers, broadening horizons through cultural trips and other experiences, and taking pride in the community through active service.

Quality Staff

Results from the most effective project site--Philadelphia--show what can be accomplished with a dedicated, quality staff. Brandeis: "The differences, for example, between San Antonio and Philadelphia cannot be attributed to the neighborhood setting, the characteristics of participants, or to the program model. What distinguishes these sites is the degree of buy-in from the host organizations and the commitment of staff at all levels."

Financial Incentives As Part of a Comprehensive Program

While financial incentives were important to some students, and helped with family expenses, it appeared that they were not the decisive factor in QOP participation. When they are part of a comprehensive, well-developed program, financial incentives can be effective in maintaining student interest in and attendance at program events. However, they do not appear to operate effectively in the absence of a strong program featuring much personal contact with staff.

Financial Resources

The Ford Foundation funded the QOP program upfront, making it possible to plan for and deliver a host of services over an extended period of time. Both staff and students knew the resources were there to carry through on their commitments.

STUDY METHODOLOGY

In 1989, program designers randomly assigned 50 disadvantaged students in each of the five sites to either a program or a control group. Researchers compared the progress of the two groups with periodic questionnaires and basic skills tests.

EVALUATION FUNDING

Evaluation of the QOP funded by the Ford Foundation.

GEOGRAPHIC AREAS

The pilot project took place in five communities: Philadelphia, PA; Saginaw, MI; Oklahoma City, OK; San Antonio, TX; and Milwaukee, WI.

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Sponsor-A-Scholar

A Summary of:

AN EVALUATION OF THE IMPACTS OF THE SPONSOR-A-SCHOLAR PROGRAM ON STUDENT PERFORMANCE Final Report to The Commonwealth Fund, December 1996, Institute for Research on Higher Education (IRHE),University of Pennsylvania (Philadelphia, PA) by Amy W. Johnson

Overview

Philadelphia's Sponsor-A-Scholar (hereafter SAS) program is built on the idea that a relationship with a caring adult can spur disadvantaged youth to achieve in high school and continue on to postsecondary education. The program matches at-risk youth with mentors who stay with them for five years—from ninth grade through the freshman college year. SAS also provides financial assistance to help students pay for college.

POPULATION

Thirty to forty students from Philadelphia public schools are served by SAS each year. Participants are nominated for the program by school staff in the 8th or 9th grade. They must be economically disadvantaged (based on qualification for the federal school lunch program) and at a middle level of academic achievement (Bs and Cs). They should also exhibit motivation to participate in the program and an interest in going on to college. Staff generally consider whether students would be able to attend college in the absence of SAS.

Evidence of Effectiveness

This 1996 analysis found that, relative to a comparison group, the 180 SAS students in the study:

- were nearly three times more likely to attend college the first year after high school
- had higher Grade Point Averages (GPAs) in 10th grade (an average of 78.8 vs. 77) and in 11th grade (an average of 78.1 vs. 76.2) and similar GPAs in the 12th grade
- participated in more college preparation activities, such as SAT prep courses, investigating financial aid opportunities or visiting a college campus (on average, SAS students participated in one and a half more activities out of a possible seven)
- who had low GPAs and high rates of absenteeism in the 9th grade, and those with minimal family support, did better than the comparison group across a number of outcome measures.

Evaluators also found that:

- The rate of absenteeism in 9th grade was a strong predictor of future academic performance for both SAS and non-SAS students.
- The more personal contact a student has with his or her mentor, the better he or she does on a number of outcome measures. A mentor's age, race, or location of home did not make a significant difference in student performance.

SAS costs $1,485 per student per year in program operational costs (in 1996 dollars).

Key Components

Philadelphia Futures is the major educational program of the Greater Philadelphia Urban Coalition, a non-profit supported by the city of Philadelphia, corporate donors, The Commonwealth Fund and other private donations. Like Baltimore's CollegeBound and I Have a Dream, SAS provides financial assistance for college and an intensive support structure to students. SAS services are delivered to students primarily at their schools on a one-to-one or small group basis. At least once a year, SAS participants from one class (i.e. the class of '95) from all high schools meet as a group. SAS features:

- $6,000 (provided by the mentor, mentor's business, a group of businesses or a group of individuals) throughout the period of college attendance to cover student essentials like books and travel money (these funds are not included when colleges calculate financial need
- each student receives all $6,000 regardless of the gap between financial aid and tuition costs)
- a mentor relationship lasting five years, with mentors who see students at least monthly and keep in frequent phone contact between visits, monitor their students' academic progress by reviewing the report card, help with financial aid and college applications, stay in contact with program staff; participate in program activities, develop a long-term relationship based on mutual respect and trust and build communication with the students' families

> *"Many young adults are growing up and leaving the education system earlier than their capabilities warrant ... For some, this is a result of isolation from the caring and consistent adult relationships that research has shown to be a common factor among many who do achieve success, despite disadvantaged circumstances."*
>
> *IRHE*

- a "class coordinator" for each year who monitors the mentor-student relationship, reviews nominations and selects students for the program, holds meetings for students, reviews students' academic progress and plans for summer activities, and works with school personnel to ensure that students are on a college-prep track
- an "academic support coordinator" who arranges for and monitors tutoring assignments, SAT prep courses and workshops on study skills, arranges trips to colleges and sets up workshops on financial aid, college selection, college applications and related topics
- summer enrichment possibilities: summer jobs, workshops on study skills and SAT prep, academic programs at a local prep school, classes at a local community college and travel to a foreign country through the Experiment in International Living
- opportunities for students and their mentors to attend local cultural and sports events

Contributing Factors

The Quality of the Mentoring Relationship

IRHE: "Because the quality of the relationship between mentor and student--not simply the fact of a relationship--seems critical to student performance, agencies that run mentoring programs should pay close attention to the selection, training, and monitoring processes that involve mentors ..."

Intensive Intervention

Philadelphia Futures has altered its approach over time to support a small, but intensive and long-term mentoring program rather than a less intensive tutoring program that could reach a larger number of students, but which might be less effective. In the early years, SAS served about 60 students a year.

Students came from nearly all of Philadelphia's 34 high schools. SAS has since decided to work with 30 to 40 youth per year, with youth concentrated in just 10-12 high schools.

More than the Mentoring: Program Support Activities

IRHE: "Program supports, in addition to mentoring, seem vital. Mentoring alone cannot provide everything to at-risk high school students, if the goal is to improve their academic performance and preparation for higher education." Program supports, beyond the scholarships and mentoring were the class coordinator, academic support coordinator, summer enrichment program and attending cultural events.

A Focus on High-Level Academic Skills

IRHE: "The implication of the lack of impact on students' measured self-esteem is that this outcome ought not to be the focus of mentors' efforts. While the lack of impact may be a function of a blunt measurement instrument that is not detecting significant changes in this area, the evidence suggests that programs and mentors alike ought to focus their efforts instead on high-level academic skills."

Rigorous Courses and Outside Activities

GPA gains in 12th grade may have been limited by two factors: 1) SAS students took more difficult courses than non-SAS students (significantly more SAS students were enrolled in two difficult courses--Elementary Functions and Physics); and 2) SAS students tended to participate in outside enrichment activities, which may have negatively affected their grades. (Also, as SAS evolved, students received more support services. Since the first cohort had the least services, their GPA gains were less, thereby bringing down the overall average GPA gains.)

> *"...the encouragement and guidance provided by a mentor or mentor-like figure, their sustained involvement, and proactive assistance with the college selection and application processes are key ingredients--along with financial assistance--in the success of social programs that aim to help individuals rise from poverty and get a college degree."*
>
> *IRHE*

Access to Information

SAS students participated in significantly more college preparation activities because they had access to information that non-SAS students lacked. The evaluator suggests that the city might consider strengthening its counseling and advising services to extend the types of benefits received by SAS participants to more non-participants.

Students with Fewest Resources Are Helped the Most

Those students with low GPAs and high absences in the 9th grade, as well as those with minimal family support, benefited the most from the SAS program. Students attending schools with high dropout rates, or comprehensive high schools, also benefited greatly from SAS. This suggests that the program should target its resources at those most in need for the greatest impact.

Flexible Staff

Program staff continually monitored their work and made changes as necessary.

STUDY METHODOLOGY

This evaluation studied 434 students (180 in the treatment group and the rest in a comparison group) from the Philadelphia public high school classes of 1994, 1995, 1996, and 1997. Researchers analyzed student, mentor and guidance counselor surveys, high school transcripts, school district information on the characteristics of the high schools attended and Philadelphia Futures' program records. Regression analysis was used to determine program impact.

EVALUATION FUNDING

Evaluation funded by The Commonwealth Fund.

GEOGRAPHIC AREAS

SAS services have reached students who have been enrolled in all 34 of Philadelphia's public high schools.

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Student Support Services

A Summary of:

NATIONAL STUDY OF STUDENT SUPPORT SERVICES: Third Year Longitudinal Study Results and Program Implementation Study Update, 1997 Westat, Inc. (Rockville, MD) by Bradford Chaney, Lana Muraskin, Margaret Cahalan and Rebecca Rak

Overview

Student Support Services (hereafter SSS) is designed to help disadvantaged students stay in college and graduate by offering academic counseling and peer tutoring. As one of the federal TRIO programs, SSS is funded under Title IV of the Higher Education Act of 1965 to help students overcome class, social, academic and cultural barriers to higher education. [Four other TRIO programs work with low-income and first-generation students at different stages of the educational pipeline. Talent Search Centers and Educational Opportunity Centers provide less intensive college information services to young people and adults respectively. Upward Bound is designed to increase opportunities for disadvantaged youth to attend college. The Ronald E. McNair Post-baccalaureate Achievement Program prepares low-income and first-generation college students for doctoral programs.]

POPULATION

Currently over 700 SSS projects serve 165,000 disadvantaged college students as measured by income (family incomes under 150 percent of the poverty line) and/or parents' educational status (neither parent has graduated from college), or who are disabled. In 1994, 66 percent of SSS participants at the study sites were female and 54 percent were members of minority groups.

Evidence of Effectiveness

SSS showed a small but positive and statistically significant effect for the following measures. Relative to a matched comparison group, SSS students:

- increased credits earned by a mean of 1.25 in the first year, 0.79 in the second year, 0.71 in the third year, and 2.25 in the three years combined
- stayed at the same institution at a 7 percent higher rate in the second year (i.e., from 60 percent to 67 percent), and a 9 percent higher rate in the third year (i.e., from 40 percent to 49 percent). SSS students stayed for a third year at any higher education institution at a 3 percent higher rate (i.e., from 74 percent to 77 percent).

Without intervention from programs such as TRIO, "Students from high-income households enroll, persist, and graduate at much higher rates than students from low-income families ... Enrollment and graduation rates are also impacted by the educational attainment level of the head of the student's household."

Westat

Students who participated the most experienced the greatest improvement. However, nearly 30 percent of the students had low levels of participation (five or fewer hours of services in their freshman year).

SSS targeted the most disadvantaged students. Compared to the total undergraduate population, SSS participants were older and more likely to be

members of a minority group (54 vs. 25 percent), have had lower levels of academic achievement before college and have dependent children.

The average cost per participant in 1995 dollars was $867. (The cost per student has decreased over time, from $1,123 in 1970 to $744 in 1995, both measured in 1990 dollars).

Key Components

SSS provides academic counseling and other support services to disadvantaged students to help them stay in college and graduate. The actual package of services offered vary by institution. Services provided include: peer tutoring, counseling/ academic advising, special cultural events, workshops and academic courses designed specifically for SSS students. Some programs are designed as "home-base" programs which assist students in securing needed services from a variety of campus offices. Others are either single-service or full-service programs.

Contributing Factors

Services Addressing Multiple Student Needs

SSS programs that addressed a wide range of students' needs--both academic and non-academic--saw the most positive outcomes, as did programs that integrated SSS with other available services. Researchers found that peer tutoring, cultural events, workshops and academic courses designed specifically for SSS participants were particularly effective.

> *"In essence, the levels of exposure to services, along with the types of services received, are important determinants of positive project effects. Depending on the amount of funding available, the program may need to choose between having a small effect on a large number of students or a larger effect on fewer students."*
>
> *Westat*

Sense of Community

Indirect services, such as attendance at cultural events, had a positive effect on student outcomes, reinforcing the idea that a sense of belonging is as important to succeeding in college as more concrete academic assistance. This sense of belonging was reinforced by workshops and courses for SSS students only, which had a positive impact on retention.

Peer Tutoring was the Service that was Most Consistently Effective

Peer tutoring was associated with statistically significant positive effects on retention, credits earned and GPA. Researchers suggest that peer tutoring addressed both academic and non-academic needs. Westat: "It may be that the peer tutors also acted as role models--especially in those cases where past SSS participants served as peer tutors--and thus helped to reinforce that SSS students could succeed and even provide help to other SSS students in the future."

The More Students Participated, the More They Benefited

There was a linear relationship between the level and intensity of student participation in SSS services and positive outcomes. The benefit for individual students depended both on whether they received those services that were most clearly related to positive outcomes, and on the number of hours of those services that they received.

STUDY METHODOLOGY

Researchers compared the college retention rate, grades, and credits of program participants against those of a statistically matched comparison group of college students who were not participants. Data sources included a longitudinal survey of these 5,800 participant and comparison students over three years, service records, project performance reports, surveys of project directors and site visits.

EVALUATION FUNDING

Evaluation funded by U.S. Department of Education.

GEOGRAPHIC AREAS

SSS operates in postsecondary institutions throughout the United States, particularly in larger schools (over 20,000 enrolled). About 34 percent of all freshmen attended institutions with SSS projects.

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Success for All/Exito para Todos

A Summary of:

Success for All/Exito Para Todos: Effects on the Reading Achievement of Students Acquiring English, February 1998, Center for Research on the Education of Students Placed at Risk (CRESPAR), Johns Hopkins University, by Robert E. Slavin and Nancy A. Madden

Overview

Success for All is a comprehensive program for elementary school students that focuses on prevention of and early, intensive intervention in potential learning problems. Success for All addresses learning problems through a three-pronged approach: high-quality instruction from kindergarten onward; improved school-family links; and one-to-one tutoring of primary-grade students who are having difficulties with reading. Although Success for All was originally designed for English-speaking at-risk children, it was adapted to Spanish Bilingual programs and English as a Second Language programs. The name "Success for All" refers to the original program for English-speaking children or to the adapted programs for non-English speaking children. "Exito Para Todos" refers specifically to the bilingual program adapted for Spanish-speaking students.

POPULATION

Success for All is offered in elementary schools that serve a high population of at-risk children, including particularly those learning English as a second language. The program is adapted for grades K to 6. In Philadelphia's Francis Scott Key School, where the first application of Success for All began, more than 60 percent of its 622 students entered the school speaking Cambodian or other Southeast Asian languages. Ninety-six percent of the students qualified for free lunch. Philadelphia's Fairhill Elementary School, where the bilingual Exito Para Todos program was first implemented, served a student body of 694 students. Seventy-eight percent were Hispanic and 22 percent were African American. Ninety-three percent qualified for free lunch. El Vista Elementary School in Modesto, CA, which also used Exito Para Todos, served a student body speaking 17 languages.

Evidence of Effectiveness

Evaluators compared Success for All/Exito Para Todos students to comparison groups and found that, after a year:

- Asian fifth-graders retained a level 2.8 years higher
- for non-Asian students, reading levels were at least a full grade equivalent higher
- Asian fourth-graders completing Success for All/ Exito Para Todos had a reading level 2.9 years higher
- reading grade levels for Spanish-speaking first graders were 1.4 grade levels higher

Key Components

Success for All/Exito Para Todos includes the following components:

- one-on-one reading tutors (may be bilingual tutors)
- a "regrouped" reading program in which students who are regularly assigned to heterogeneous, age-grouped classes are regrouped for a 90-minute period according to reading performance levels
- eight-week reading assignments after which teachers assess students and make program adjustments
- ESL instruction offered either in a group setting or individually
- Family Support Teams which provide opportunities for parenting education and involvement
- a program facilitator who works at each school full-time to oversee operations

Contributing Factors

Coordination of Classroom Activities

Tutors, reading teachers, ESL teachers and others successfully coordinate classroom subjects and activities. Teachers regularly meet to coordinate their approaches for individual children.

Engaging Activities for Students

Reading and academic basics are taught by traditional means and through engaging activities that encourage the development and use of language. The program offers a balance of academic readiness and non-academic music, art and movement activities.

Links Community Service Agencies

Students who are not receiving adequate sleep or nutrition, need glasses, are not attending school regularly, or are exhibiting serious behavior problems are referred to appropriate community service agencies.

Parental Support

Through Family Support Teams, parents have an open forum to discuss with teachers the progress their child is making.

STUDY METHODOLOGY

The report evaluates the results of Success for All/ Exito Para Todos in two elementary schools in Philadelphia, three in California and two in Arizona. It also cites the study of Exito Para Todos currently underway in Houston. Evaluators based their reports on grade levels and academic achievements. They compared Success for All/ Exito Para Todos participants to similar groups of students attending other language development programs. Some evaluations were based on three scales found in the Woodcock Proficiency Battery: Word Identification, Word Attack and Passage Comprehension.

EVALUATION FUNDING

Office of Educational Research and Improvement, U.S. Department of Education.

GEOGRAPHIC AREAS

The evaluation focused on sites in: Philadelphia, PA (Francis Scott Key School and Fairhill Elementary School); Southern California (Fremont, Wright and El Vista elementary schools); Arizona; and Houston, Texas.

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Tech Prep: Texas

A Summary of:

EXECUTIVE SUMMARY: Evaluation of Tech-Prep in Texas, January 1998

TECH-PREP IN TEXAS: Status Report/ Summary of Statewide Data on Programs and Student Characteristics, an Update of the Impact of the Tech-Prep Initiative in the Governor's 24 Planning Regions, August 1998

Overview

As noted in the previous summary, Tech-Prep was initiated in the early 1990's to encourage high school graduates to enter postsecondary education and achieve an associate's degree or two-year certificate in a technical field, such as engineering technology, applied science, trade, mechanical, industrial or practical art, agriculture, health or business. Students also have the opportunity to enter bachelor's degree programs when interested. Title IIIE of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 defined the model and provided grants for the planning and development of Tech-Prep programs to consortia formed by educational agencies and postsecondary institutions. Tech-Prep programs often provide the foundation for school-to-career programs. In 1998, Texas completed its sixth year of implementation of Tech-Prep programs. The state currently has 25 consortia and 505 state-approved associate's degree programs.

POPULATION

In Texas, secondary school enrollment in Tech-Prep programs has grown from 11,398 in School Year 1993-94 to 68,922 in 1997-98. In this same period, Tech-Prep enrollment grew from 8,529 to 64,994 postsecondary students. Tech-Prep programs are offered in 95.2 percent of the counties and 78.3 percent of school districts serving 95.5 percent of the K-12 students in the state. All the urban and most suburban school districts have Tech-Prep programs. However, the majority of the programs are located in rural (32 percent) and non-metro districts (26 percent). In 1996-97, 55 percent of the students enrolled in Tech-Prep programs were white, 31 percent Hispanic and 11 percent African American; 37 percent were classified as "at-risk," 28 percent were economically disadvantaged, and nearly eight percent were special education students.

Evidence of Effectiveness

The evaluators compared students identified by school districts as participating in Tech-Prep programs (Tech-Prep students) with two other groups of students: (1) students taking vocational education credits, who were not participating in a coherent sequence of courses approved as Tech-Prep (other vocational students); and (2) students who were not taking vocational credits (non-vocational students). The results on the Texas Assessment of Academic Skills (TAAS) from 1995 to 1997 show that students identified as Tech-Prep in grade 10:

- increased their overall pass rates in all sections of TAAS by 16 percent while non-vocational students improved by 12.4 percent

- increased pass rates in the reading section of TAAS by 12 percent, in writing by four percent and in math by 15 percent, compared to 9.6, 1.8 and 11.8 for non-vocational students

Data collected by the statewide Public Education Information Management System (PEIMS) show that students identified as Tech-Prep students had a:

- 13 percent decrease in dropout rates (from 1.28 percent in 1994-95 to 1.11 percent in 1996-97), compared to a six percent decrease for non-vocational students (from 1.75 to 1.64 percent) and a 23 percent decrease for other vocational students (from 2.18 to 1.67 percent)

- 88 percent graduation rate since 1994-95, compared to a 82 percent rate for non-vocational and other vocational students

In a follow-up of three cohorts of high school graduates, an average 75 percent of Tech-Prep and 70 percent of non-Tech-Prep students were located.

The follow-up indicated that:

- 26 percent of Tech-Prep students are working (non-vocational 23 percent; other vocational 30 percent)

- 31 percent are working and pursuing postsecondary education (non-vocational 25 percent; other vocational 27 percent)

- 19 percent are pursuing postsecondary education and not working (non-vocational 21 percent; other vocational 16 percent)

Representatives of school districts offering Tech-Prep programs indicated that the programs have:

- been of direct benefit to students (84 percent of respondents)

- increased interest in career and technology education programs in their districts (78 percent)

Key Components

The key components of a Tech-Prep educational program in Texas are:

- formal articulation agreements between secondary and postsecondary schools

- two or four years of secondary school plus two years of higher education or an apprenticeship program of at least two years (with a common core of required proficiency in mathematics, science, communications and technologies) leading to an associate's degree or certificate in a specific career field

- development of Tech-Prep education program curricula appropriate to the needs of consortium participants

- in-service training for teachers to effectively implement the curriculum

- training for counselors to improve student recruitment, graduation from the program and job placement

- equal access to the full range of Tech-Prep programs to members of special populations

- preparatory services to assist all program participants

- integrated occupational and academic learning

Although programs vary widely to fit local needs, most Tech-Prep programs offer:

- "seamless" extension of courses from high school to postsecondary education or training, usually at a community college

- integrated hands-on training with academics

- emphasis on technology through venues such as technology laboratories
- work-based experience, offered either through collaboration with local employers or through simulated worksite experiences at a school approved to offer Tech-Prep
- focus on individualized career guidance and exploration
- partnerships with school-to-work programs or adoption of school-to-work components
- job placement and assistance with transfer to four-year universities
- supports for minority students, those with limited English proficiency, from low-income families, re-entering school, or coming from special education programs

Currently, 49 of the 50 community colleges and community college districts, all three campuses of the Texas State Technical College and all three public, lower division postsecondary institutions in Texas are involved in Tech-Prep initiatives and have approved Tech-Prep Associate of Applied Science degree programs.

The most numerous programs are in business management and administrative services (23.2 percent of postsecondary and 39.3 percent of secondary program options), health professions and related science (16.6 and 8.9 percent respectively), engineering-related technologies (12.9 and 8.9 percent) and precision production trades (10.7 and 6.8 percent). Computer and information science is popular at the secondary level (13.3 percent), but less in the postsecondary institutions (5.9 percent).

Contributing Factors

Partnership Development

The implementation of Tech-Prep in Texas has contributed to increased involvement of business, industry, labor and the community at large in education. In 1997, 47 percent of Tech-Prep governing boards were composed of business, industry and labor representatives, 37 percent were education representatives, and 16 percent were community members. Partnerships between secondary and postsecondary education have improved course articulation, integration of program content and professional development.

Clear Educational Goals

Survey participants considered that Tech-Prep better prepares students for work and postsecondary education and provides greater focus and clearer goals for students. Participants also agreed that Tech-Prep programs have increased the awareness of career and technology education and improved its image throughout the state, even in districts that do not have Tech-Prep programs.

Postsecondary Connections

Tech-Prep programs go beyond high school years to include two years of postsecondary education. The curricula contain a common core of academic and technology education. Students are encouraged to complete the required credits for the more rigorous graduation plan (Recommended High School Program) or the advanced plan (Distinguished Advancement Plan). Upon completion of the associate's degree, they can also transfer to a four-year institution to earn a bachelor's degree.

Supporting Activities

Teachers, both in academic and technical courses, and counselors at the secondary and postsecondary levels are involved in training activities provided by each Tech-Prep consortium. These activities focus on professional development as well as student recruitment, achievement and job placement.

STUDY METHODOLOGY

A statewide survey was conducted with representatives of 600 of the 691 independent school districts in Texas approved to offer Tech-Prep programs (89.4 percent return rate), and 168 of the 282 school districts not approved to offer the programs (60 percent return rate). The survey covered all the essential elements of a Tech-Prep program. In addition, researchers used the Public Education Information Management System (PEIMS) database to evaluate student outcomes, using the School Year 1994-95 as baseline. The report also incorporates results of previous evaluation studies and input from Tech-Prep consortium personnel, representatives of agencies developing the programs and state agency staff.

EVALUATION FUNDING

Both evaluations by the Region V Education Service Center (Beaumont, TX), Carrie H. Brown, Project Director. The Texas Higher Education Coordinating Board with funds provided by the Carl D. Perkins Vocational and Applied Technology Education Act of 1990.

GEOGRAPHIC AREAS

Tech-Prep programs are offered in more than 6,000 school districts nationwide. This study reflects the implementation of Tech-Prep in Texas.

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Turner Technical Arts High School: Florida

A Summary of:

WILLIAM H. TURNER TECHNICAL ARTS HIGH SCHOOL: Two for One and One for All, 1998, The New Urban High School: A Practitioner's Guide, The Big Picture Company and the U.S. Department of Education, Office of Vocational and Adult Education

WILLIAM H. TURNER TECHNICAL ARTS HIGH SCHOOL: A Statistical Profile, 1998, Internal Document

Overview

William H. Turner Technical Arts High School (Turner Tech) was founded in 1993 to provide inner-city youth with high academic and technical skills to prepare them for the 21st Century. Students who graduate from Turner Tech earn both a high school diploma and an industry-recognized certification. The school is operated by Miami-Dade County Public Schools and draws students from the entire county. Students who apply to the school are chosen on three criteria: attendance, conduct, and technical interest.

POPULATION

During School Year (SY) 1995-96, Turner Tech served 1,856 students. In SY 1997-98, this number increased to 2,073 students. The majority of students were African American (57.4 percent), followed by Hispanic (36.5 percent). The proportion of white students has increased from 4.0 percent in SY 1996-97 to 5.3 percent in SY 1997-98. The proportion of students from other racial/ethnic backgrounds have increased in the same period from 0.4 percent to 0.8 percent. The majority of the students come from low-income areas and 85 percent qualify for free or reduced -price lunch. The school has 100 teachers, 55 percent of whom are white, 25 percent African American and 17 percent Hispanic.

Evidence of Effectiveness

Follow-up studies of the first Turner Tech graduating class of 184 students in 1996 showed that:

- 63.1 percent were enrolled in two- or four-year colleges
- 10.3 percent went to a technical/trade school
- 11.4 percent were working on jobs related to their field of study
- 2.7 percent had joined a branch of the armed forces

Follow-up studies of the 1997 graduating class, with 397 graduates, showed that:

- 71.5 percent were enrolled in two- or four-year colleges
- 11.8 percent were working on jobs related to their field of study
- 6.8 percent went to a technical/trade school

When compared to other Miami-Dade County high schools, Turner Tech has been:

- consistently below the district's dropout rate (2.7 percent vs. 8.85 percent)
- at or above the school district's average score for the High School Competency Test administered to all 11th grade students in the state (for the 1996 test, Turner Tech students averaged 73 in the communications part of the test and 66 in the mathematics test compared to the district's average of 67 and 66, respectively)

When Turner Tech 10th graders are compared to their statewide peers on the Florida Writing Assessment tests:

- 92.7 percent vs. 85.6 percent scored at 3.0 level or better in the Writing to Convince part of the test
- 87.6 percent vs. 86.7 percent scored at 3.0 level or better in the Writing to Explain part of the test

An overview of the scholarships provided by the Miami-Dade County Public Schools College Assistance Program to Turner Tech students shows an increase in:

- number (in 1996, 62 students received scholarships, increasing to 178 in 1997, and 218 in 1998)
- percentage of academic scholarships (in 1996, 67 percent of the scholarships were academic, increasing to 93.8 percent in 1997, and 94.2 percent in 1998)

Turner Tech has been recognized by many organizations as a model school and was nominated as one of the top ten New American High Schools (U.S. Department of Education); one of the five New Urban High Schools (U.S. Department of Education and The Big Picture Company); and one of the five national models of school restructuring (American Federation of Teachers).

Key Components

Currently, Turner Tech offers seven academies: Agriscience, Applied Business Technology, Health, Industrial Technology, NAF/Fannie Mae Foundation/Academy of Finance, Public Service/ Television Production, and Residential Construction. The school is also researching the possibility of developing a program in media production. Students select one of the academies as freshmen and select one of 22 areas of specialization in their sophomore year. The basic elements of Turner Tech's educational program are:

- an integrated curriculum, where academic subjects are blended into the career major (students must complete a sequence of core and technical courses to graduate)
- a "two for one" diploma (students receive both a high school diploma and an industry certification)
- hands-on experiences in actual workplaces and school-based enterprises
- teamwork (both students and teachers work in teams)
- programs based on job market projections and future job demand as determined by the U.S. Department of Labor

Contributing Factors

Teachers as Generalists

Teachers and administrators share teaching, administrative and counseling duties. In addition to their usual functions, teachers and administrators plan the units, develop curriculum and standards, counsel and guide students, and are expected to be role models.

Employer Involvement

Each academy has an advisory committee composed of local business and industry representatives. The committee advises on the skills students need to succeed in the workplace, in addition to offering internships and other opportunities to expose the students to real-world situations.

Learning Through Occupation

By exposing all students to academic and vocational subjects, Turner Tech eliminates the traditional division between college-bound and non-college-bound students. The number of Turner Tech students who pursue postsecondary studies shows that vocational training, when associated with high academic standards, is no deterrent to further education.

Students as Workers

Students learn work-related skills in all aspects of their school life. They are expected to demonstrate mastery on district, state, and national tests, and are required to maintain proper behaviors with an emphasis on integrity, trust and tolerance.

STUDY METHODOLOGY

For *The New Urban High School*, The Big Picture Company's staff visited 23 "highly regarded" urban high schools in 16 cities focusing on six basic elements: work-based learning, vocational-academic integration, mentoring, post-secondary links, career exploration, and supportive learning environments. The schools included in the report were considered for developing programs that excelled on these basic elements. The *Statistical Profile* includes follow-up studies of graduating students and data on school attendance, dropout and academic performance compiled by the Miami-Dade County Public Schools.

GEOGRAPHIC AREAS

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Union City School District: New Jersey

A Summary of:

UNION CITY INTERACTIVE MULTIMEDIA EDUCATION TRIAL: 1993 - 1995 Summary Report, April 1996, *CCT Reports*, Issue No. 3, by Margaret Honey and Andres Henriquez

THE UNION CITY STORY: Education Reform and Technology, Students' Performance on Standardized Tests, April 1998, *CCT Reports,* by Han-Hua Chang, Margaret Honey, Daniel Light, Babette Moeller, and Nancy Ross

Overview

This summary examines the results of two simultaneous initiatives undertaken in Union City School District, New Jersey. In 1989, Union City was declared a special-needs district and was threatened with a take-over by the state. In response, the school district developed a five-year improvement plan, which included comprehensive curriculum reform, cooperative learning and teacher teams. This plan attracted Bell Atlantic-New Jersey, which was looking for a site to test a project for bringing technology to schools and communities through telephone networks. In Fall 1993, Bell Atlantic initiated a pilot program at Christopher Columbus Middle School by supplying computers to the school and the homes of its seventh grade students and teachers. As the students advanced to high school, the company added support for participating teachers. The District later expanded the technology trial into a comprehensive school and community-network covering all eleven schools in the district. The network, known as Union City Online, was funded by the National Science Foundation.

POPULATION

Union City, New Jersey, is the most densely populated city in the United States. Most of its 60,000 residents are immigrants from Cuba, and other Central and South America countries. The city has been classified as one of the 92 most impoverished communities in the United States, with 27.5 percent of its children below the poverty line. Union City School District serves approximately 9,000 students. Ninety-two percent of the students are Spanish-speaking. The pilot technology program served 135 seventh grade students and their families and 20 teachers at the Christopher Columbus Middle School, one of 11 schools in the district.

Evidence of Effectiveness

Between 1989 and 1997, the combination of new curriculum, teaching methods and the infusion of technology, resulted in a statistically significant:

- decrease in the student-mobility rate (from 44 percent in 1989 to 22 percent in 1995)
- improvement in standardized test scores for elementary school students (first grade students increased their scores by 45 percentile points in reading, 34 percentile points in writing, and 18 percentile points in math; fourth grade students increased their scores by 14 percentile points in writing)

- increase in test scores for middle school students (between 1992 and 1995 reading scores improved by 53.6 percent, writing scores by 42.9 percent, and math scores by 29 percent)

The pilot technology program helped to improve:

- communication among participants (teachers reported using the network to exchange ideas, plan joint projects, help substitutes maintain continuity, and communicate with students and parents; parents used the network to direct questions and comments to school staff)

- overall performance for students at the pilot technology school (more Columbus Middle School students qualified for the honors program and passed New Jersey's Early Warning Tests than students from other schools; intense and sustained access to technology had a particularly strong impact on writing skills)

> *"This unique institution of learning exemplifies the future school. The technology trial continues to have a major impact on students' accessibility to knowledge. It is truly a school without walls. Accessing the Internet permits the acquisition of global knowledge."*
> *Robert Fazio, Columbus Middle School*

In 1989, the state threatened to take over Union City schools because of a large number of deficiencies. In 1995, Union City students scored 27 percentile points above students in other special needs districts on the Early Warning Test. As a result of the comprehensive reforms, the New Jersey State Department of Education ended its monitoring procedures and fully certified the Union City School District.

Key Components

The reforms began in elementary grades and additional classrooms were added each year until all grade levels were affected. Similarly, the technology program was initiated with Bell Atlantic's donation of 44 computers to Columbus Middle School, with an additional 66 computers available for use by students and teachers. Currently, Union City is one of the most wired urban school districts in the country. The reforms relied on four major elements:

- comprehensive curriculum reform based on a whole language approach, geared toward cooperative learning, developed by teams of teachers, and designed to be phased in gradually

- major scheduling changes (blocks of time of 74 to 111 minutes replaced 37 minute periods and all "pull out" programs to provide remediation were eliminated)

- increased in-service training (the teachers at Columbus Middle School were trained in use of computers and network environments; this training was expanded to all school staff and parents, and is now offered community-wide)

- infusion of technology (by 1997, all 11 District schools were linked in a network of more than 2,000 personal computers in classrooms, teacher and student homes, computer labs and media centers)

Contributing Factors

Strong Collaboration among All Partners

The project involved collaboration among the schools, community members and Bell Atlantic. The Board of Education supplied funding for multimedia needs and supported teacher training and time for teacher curriculum development meetings. Teachers were involved at every level of reform.

Parental Participation

A "Parent University," created as part of the district-wide reform plans, offers a variety of services to parents, including math, science and computer classes, ESL classes, and parenting skills workshops.

Increased Funding

The budget for the Union City School District increased from $37.8 million in 1989 to $100 million in 1997. Much of this increase was a result of New Jersey's Quality Education Act designed to eliminate some of the disparities between poorer and wealthier districts**.** A grant from the National Science Foundation, combined with additional funding from the state of New Jersey and the school district, enhanced the district's technical infrastructure.

STUDY METHODOLOGY

The impact of the enhanced technology was assessed by comparing test scores of students who had access to technology at home and at school with test scores of those who had access only at school. The impact of the educational reforms were evaluated by comparing student performance on standardized tests before and after the reforms were put in place. The impact of the reform on staff and parents was assessed through interviews.

EVALUATION FUNDING

Bell Atlantic-New Jersey Foundation, The Jerry Lee Foundation and the National Science Foundation.

GEOGRAPHIC AREAS

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Upward Bound

A Summary of:

THE SHORT TERM IMPACT OF UPWARD BOUND: an Interim Report, February 1997, by David Myers and Allen Schrim

A 1990'S VIEW OF UPWARD BOUND: Programs Offered, Students Served, and Operational Issues, February 1997, by Mary T. Moore

Overview

Upward Bound (hereafter UB) is a federal initiative designed to increase opportunities for disadvantaged youth to attend college. UB provides academic courses, tutoring and counseling during the school year, as well as an intensive, college-oriented summer program. As one of the federal TRIO programs, UB is funded under Title IV of the Higher Education Act of 1965 to help students overcome class, social, academic and cultural barriers to higher education. [Four other TRIO programs work with low-income and first-generation students at different stages of the educational pipeline. Talent Search and Educational Opportunity Centers provide less intensive college information services to young people and adults respectively. Student Support Services supports retention and graduation of low-income, first-generation and disabled students in college. The Ronald E. McNair Post-baccalaureate Achievement Program prepares low-income and first-generation college students for doctoral programs.]

POPULATION

More than 600 UB projects serve 42,000 disadvantaged students as measured by income (family incomes at under 150 percent of the poverty line) or by parents' educational status (neither parent has graduated from college). Nearly three-fifths of the participants are African American, one-fifth are white, and one-eighth are Latino; 59 percent are female.

Evidence of Effectiveness

The U.S. Department of Education commissioned a six-year experimental study of program impacts, of which this report is the initial phase. This report focuses on the first few years of high school and assesses short-term impacts. It found the following statistically significant impacts:

- During their first year of participation, UB students earned:
  - about one more high school credit (in Carnegie units) than control group members
  - more credits than control group members in science (0.18), mathematics (0.16), English (0.26), foreign languages (0.13) and social studies (0.22)
  - more credits than control group members in vocational education and remedial mathematics courses
- UB students who had *lower* initial educational expectations (did not expect to complete a four-year degree) earned substantially more credits than similar control group members,

surpassing the number of credits more than similar control group members that UB students with *higher* initial educational expectations (expected to complete at least a four-year degree) earned:

- 0.6 vs. 0.1 more credits in mathematics
- 0.8 vs. 0.1 more credits in English and Social Studies
- 3.1 vs. 0.5 more credits across all academic subjects.

- UB students who were Hispanic gained more than 2 credits, compared to gains of less than 0.5 credits for African American and white students.

UB course content appears to be academically serious:

- the majority of the projects prescribe either a foundation set of courses (reading, writing, Algebra I and II), or mathematics/science courses (precalculus, calculus and science in addition to the foundation courses)
- 50 percent of the projects offer more than 17 academic courses in the summer and 10 during the regular school year
- more than two-thirds of the projects focus on college-prep or enrichment programs

Nevertheless, a large percentage of UB students leave in the first year. About 32 percent of those who entered the program before the summer of 1993 had left by the end of the 1993-1994 academic year. Projecting from the experience of all students in the study, Mathematica concluded that 37 percent of UB participants will leave within the first year.

Although both the program and control groups experienced a decline in their educational expectations over the course of the study, the decline was much steeper for the control group. Similarly, the educational expectations that control group parents had for their children declined at a sharper rate than did the expectations of UB parents.

The average federal cost per student in 1996 was $3,800 (in 1996 dollars).

Key Components

Most students enter UB in their freshman or sophomore years. They participate in weekly activities during the school year and an intensive summer program designed to simulate college. The projects are usually hosted by two- or four-year colleges, although some are hosted by community-based organizations and high schools. UB is focused on academic preparation through enhancing the high school curriculum (often through offering academic courses in addition to those taken at high school) and emulating a college-level experience. Most projects provide a large range of support services, including tutoring, counseling, planning for financial aid, career planning, cultural awareness programs, and stipends. UB projects tend to focus their efforts on the student--not the school system or the family.

> *"Despite increases in overall levels of college attendance, a considerable gap remains between the postsecondary participation and completion rates of disadvantaged students and those of their more advantaged peers. Upward Bound is one of the main components of the federal government's enduring commitment to reduce this gap."*
>
> *Mathematica*

Contributing Factors

Employment Considerations

In some cases, students declined to enter a UB program or left during the first year for reasons related to employment. If there were more opportunities to gain work experience or workplace skills through the program, the retention rate might be higher. An earlier study—"The National Evaluation of UB: Grantee Survey Report," September 1995, Nancy Fasciano and Jon Jacobson (Mathematica), submitted to US Department of Education—showed that the retention rate was higher in programs that offered year-round work experience than in those with less than a full-yearwork component.

Students with Lower Expectations Left UB in Greater Numbers

Students who were not planning to complete a college degree were more likely to leave the program in the first year.

Race/Ethnicity Is a Factor in Students' Leaving

Asian students were only one-third as likely as African American students to leave UB, and Native American students only half as likely to leave as African American students. These two groups were also more likely to participate initially than African American students.

> *"...our initial look does suggest that larger impacts may be possible if Upward Bound projects were better able to hold students in the program, particularly students with low initial expectations...One approach for retaining these students is to place more direct emphasis on raising expectations of lower-aspiration students so that they see the possibilities available to them if they remain in school for a longer period. Another mechanism for retaining participants may be the provision of employment opportunities during the summer and school year."*
>
> *Mathematica*

Early Intervention Improves Participation

UB recruited students in the 8th, 9th, 10th and 11th grades. Researchers found that students targeted by recruitment efforts in the upper grades were less likely to participate in UB when given the opportunity to do so.

STUDY METHODOLOGY

From a representative sample of 67 UB projects, 2,800 eligible applicants were randomly assigned to either UB or a control group. Researchers compared the two groups by analyzing data from a longitudinal student survey, high school transcripts, service records, surveys of the project director and the high schools from which students were recruited, site visits and program records.

EVALUATION FUNDING

Both studies by Mathematica Policy Research, Inc. (Washington, DC office). Both evaluations funded by U.S. Department of Education.

GEOGRAPHIC AREAS

UB programs are in communities nationwide.

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Youth River Watch: Austin, TX

A Summary of:

A River Runs Through It: Austin Youth River Watch, Final Report 1993-94, December 1994, Office of Research and Evaluation, Austin Independent School District, Texas, by Jeannine Turner

Overview

The Colorado River Watch Foundation (CRWF) is a not-for-profit organization dedicated to the scientific study, preservation, and conservation of the Colorado River. In 1991, CRWF proposed that the City of Austin develop a program involving at-risk minority students in river monitoring activities, the Austin Youth River Watch Program (AYRWP). The program has three major goals: to improve the water quality of the Colorado River and its tributaries; to reduce the dropout potential of students through positive role model interaction; and to increase the participation of minority students in critical environmental issues and in technical careers that require an understanding of science and mathematics.

POPULATION

The outcomes provided in this evaluation apply to the 47 AYRWP participants during School Year 1993-94. Participants were 12 to 19 years of age and in grades 6 to 12. Seventeen were participating for their second year. Ninety-two percent of the students were identified as being at risk of dropping out of school, and 47 percent were over-aged for their grade level. Fifty-two percent of the trainees and 50 percent of the mentors were female. Twenty-three (50 percent) of the students were African American, 21 Hispanic, one Asian and one white. The ethnic composition of the mentors was four Hispanics, three African Americans, two whites and one Asian.

Evidence of Effectiveness

The 47 participants in AYRWP in 1993-94 came from eight area public schools, a private middle school, and a learning center; one participant was home schooled. Data was collected only for the 43 in public schools. When Austin Independent School District students who participated in the program were compared with similar students who did not participate, AYRWP participants were found to:

- be more likely to advance to the next grade level (only 2.9 percent of participants were recommended to be retained in the same grade level, compared to 9.2 percent of non-participants)
- be less likely to dropout of school (no program participant dropped out, compared to the average dropout rate of 8.8 percent for the school district)
- have a higher Grade Point Average (GPA for participants during Fall 1993 was 82.3, and for Spring 1994 was 81.8, compared to 79.2 and 79.3 for non-participants)

Also of note, eight of the seventeen 1992-93 participants who continued in 1993-94 were promoted to mentor positions.

The program was funded by the City of Austin with money from the water and wastewater utility rates, electric utility rates and drainage fees. Total funding for the program in 1993-1994 was $82,303, at a cost of $1,789 per student.

Key Components

AYRWP engages students in learning by involving them in real-life activities. Students are responsible for conducting water quality tests in the Colorado River and its tributaries. To conduct the tests, the students must:

- use mathematics, calculations and measurements
- understand chemical reactions
- write reports that are sent to the Lower Colorado River Authority and added to its database
- present their studies at a school symposium and at the annual river watch symposium

Eleventh and twelfth-grade students, experienced in river water monitoring, are hired to work with the younger at-risk "trainees." The mentors conduct chemical and biological monitoring with the trainees at a designated monitoring station located on one of the 22 creeks that feed into the Colorado River. Mentors are paid to tutor the trainees in mathematics and/or science for at least two hours per week and to perform the water quality tests.

The program runs Monday through Friday after regular school. Participants are recruited among at-risk students. They can enroll in the program directly, or be recommended by teachers, parents or friends. Newly recruited students have a three-month probation period before being added to the roster. Middle school students who remain past the probationary period are treated as full members and are also paid for their participation in the water quality tests and in the tutoring sessions. Participants are involved in social activities that have water quality as the central theme. At the Annual Spring Student River Watch Symposium, participants present their monitoring data to community leaders and professional scientists.

Contributing Factors

Immediate Outcomes

Students were able to see improvements in their own behavior in a short period of time. Several reported that the program kept them "out of trouble" and "off the streets," while providing experiences, knowledge and gainful activities. Others indicated greater interest in science and in their own future after participating in the program.

Service to Community

The students' participation has expanded and enhanced the water quality database of the Colorado River and its tributaries and helped the monitoring process of the water that serves their own communities.

Reality-Based Learning

Students felt that the activities were useful and provided them with basic knowledge of mathematics, science, environmental issues and English. "Through the river watch, I've heard about more environmental issues and my knowledge about them has increased," declared one student. "We use math to figure out the [test] results, science to know what we are doing to help our Earth, and English to write in our journal about what we did," wrote another.

Enrichment Activities

To the question, "What did you most enjoy about your participation?" a student commented: "That it is helping me to learn more about science, and [I like] the money." Another student enjoyed "learn[ing] new things and meet[ing] new people." Some students emphasized the trips and the picnics. Others cited the workshops, symposium and seminars that they had attended. A student observed that "it's fun, because it's like a job, but not really."

STUDY METHODOLOGY

The researchers used interviews, student rosters, questionnaires and student data files to obtain information about student characteristics, grades, perceptions of program benefits and program activities. They also used the Generic Evaluation System (GENESYS) to compare the dropout and retainee statuses of participants with that of the overall school district. GENESYS is a program used by the Austin Independent School Ddistrict's Office of Program Evaluation to evaluate the effectiveness of dropout prevention programs.

EVALUATION FUNDING

The Austin Independent School District.

GEOGRAPHIC AREAS

The students and mentors worked in monitoring stations across the City of Austin, TX.

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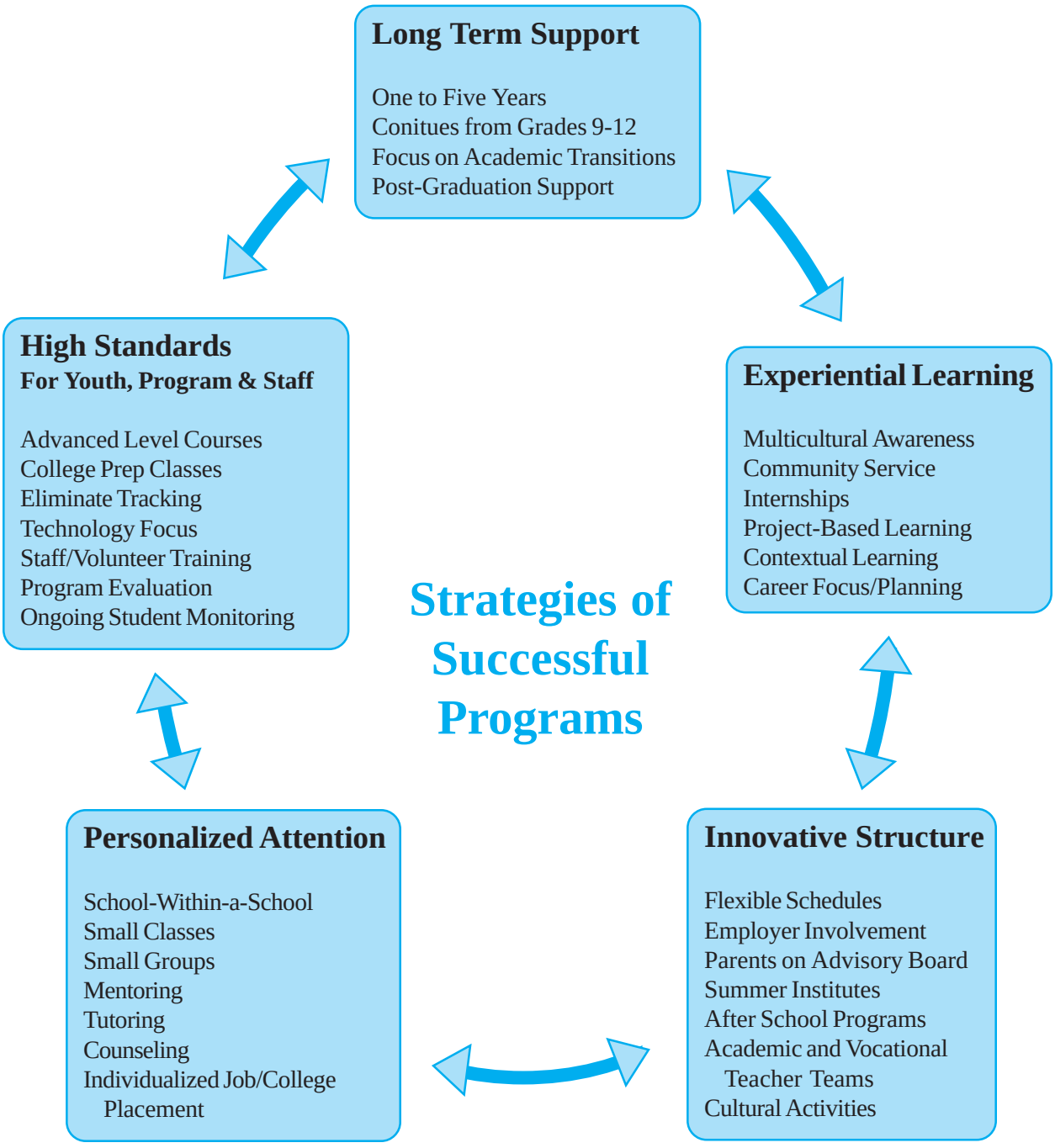
Raising Academic Achievement



The key to success is not any one of these stratagies, but rather a mix of elements from the five strategies

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End Notes

[1] National Commission for Excellence in Education (1983). *A Nation At-Risk: The Imperative for Educational Reform*, p.7. Washington, DC: U.S. Department of Education.

[2] National Center for Education Statistics [NCES] (1995). *Digest of Education Statistics* (NCES 95-029). Elementary and Secondary Education, Educational Achievement, tables 108, 115, 124, 135. Washington, DC: U.S. Department of Education.

[3] Toffler, A. (1980). *The Third Wave*. New York, NY: William Morrow; Roberts, K.M. (May 1996). Today's Trade and Industrial Revolution. *Vocational Education Journal*, 57:26-29.

[4] Employment and Training Administration (1994). Dilemmas in Youth Employment Programming: Findings from the Youth Research and Technical Assistance Project. *Research & Evaluation Report*, Series 92-C, Vol. 1-2. Washington, DC: U.S. Department of Labor.

[5] Gradler, G.C. & Schrammel, K.E. (Spring 1994). The 1992-2005 Job Outlook in Brief. *Occupational Outlook Quarterly*: 2-47.

[6] Criticisms to the linear relationship between economy and education can be found in Howe II, H. (1993). *Thinking About Our Kids*. New York, NY: The Free Press; Paris, D.C. (1994). Schools, Scapegoats and Skill: Educational Reform and the Economy. *Policy Studies Journal*, *22* (1): 10-24.

[7] On this issue, see for instance, Barber, B. (1992). An Aristocracy of Everyone: the Politics of Education and the Future of America. New York, NY: Ballantine Books; Hirsch, Jr., E.D. (1996). *The Schools We Need: Why We Don't Have Them*. New York, NY: Doubleday.

[8] The TRIO program got its name in the late 1960s when it was just three programs to help disadvantage students go to college. At that point, TRIO was Upward Bound, Talent Search, and Student Support Services. It now includes eight separate programs. GEAR UP, authorized in 1998 under the Higher Education Act, stands for Gaining Early Awareness and Readiness for Undergraduate Programs.

[9] A discussion of accountability in public schools, including high stakes testing, can be found in the write up of one of AYPF's weekly forums at http://www.aypf.org/forumbriefs/2000/fb010700.htm.

[10] NCES (2000). *The Condition of Education 2000*, pages 66, 44, 26, 56. The dropout data is taken from NCES (1999). *Digest of Education Statistics 1999*, table 108. For more information on improved education outcomes, see, *Do You Know the **Good News** about American Education?* (Washington, DC: Center for Education Policy and the American Youth Policy Forum, 2000).

[11] NCES, ibid., tables 403 & 411.

[12] A full explanation of the process used to select evaluations can be found at James, D. W. with Sonia Jurich (1999). *MORE Things That DO Make a Difference for Youth*, Research Notes, p. V-VIII. Washington, DC: American Youth Policy Forum. www.aypf.org/compendium/index.html

[13] In 1998, 62.8% of Hispanic young adults between the ages of 18 and 24 had completed high school, compared to 81.4% of African Americans, 90.2% of whites, and 94.2% Asian Americans. National Center for Education Statistics [NCES] (1999). *Dropout Rates in the United States* (NCES 2000-022). Washington, DC: U.S. Department of Education. In part, the low rate of high school completion for Hispanics may be explained by migration of Hispanic young adults who did not have a high school degree when entering the United States.

[14] In the school district studied — LA Unified – each 20 week course is assigned 5.0 units and 2.5 units for the ten week courses. A student generally enrolls in five to six 20-week courses per semester. In two semesters per school year, a student can earn 50-60 units if he or she passes all classes. Additional units can be earned if the student attends summer school and does not take a repeated course.

[15] For research on the benefits of attaining the General Educational Development test (GED) see *MORE Things That **DO** Make a Difference for Youth*, p. 150-153.

[16] None of the program evaluations we examined for this report had data on college completion. According to the Digest of Education Statistics, 1999, among the students who enrolled in a 4-year college in 1989-90, 47% had not completed their degree five years later (http://nces.ed.gov/pubs2000/digest99/chapter3.htm)

[17] Glaser, B.G. & Strauss, A.L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York, NY: Aldine de Gruyter.

[18] Hershey, A.M., Silverberg, M.K., Owens, T. & Hulsey, L.K. (1998). "Focus for the Future: The Final Report of the National Tech-Prep Evaluation." Princeton, NJ: Mathematica Policy Research, Inc.

[19] Hispanic youth, the group with the highest dropout rate among American students, start working at an earlier age and work longer hours than non-Hispanic youth. They may be the group most hurt by the traditional, inflexible high school schedules. See, for instance, Denham, A. (Ed.) (1987). *Prevention and Retention: Facing Dropout Problems, Finding Solutions*. Proceedings of the Second Texas Symposium of Hispanic Educational Issues, Texas Tech University, Intercultural Development Research Association (1996). Staying in school. *IDRA Newsletter, 23* (9).

[20] Research indicates that youth violence predominates in after-school hours. See, for instance, Tolan, P. & Guerra, N. (1994). *What Works in Reducing Adolescent Violence: An Empirical Review of the Field*. Boulder, CO: Center for the Study and Prevention of Violence.

[21] See, for instance CITE THE ARTICLE AND THEN PUT In Sum, Andrew, et. al. (ed.) (1997) *A Generation of Challenge, Pathways to Success for Urban Youth*, Policy Issues Monograph 97-03. Baltimore, MD: Johns Hopkins University, Sar Levitan Center for Social Policy Studies. p. 76.

[22] Sum, Andrew, et. al., ibid., p. 74-75.

[23] See, for instance, Catalano, R.F., Berglund, M.L., Ryan, J.A.M., Lonczak, H.C., & Hawkins, J.D. (1998). *Positive Youth Development in the United States: Research Findings on Evaluations of Positive Youth Development Programs.* Washington, DC: U.S. Department of Health and Human Services; Roth, J., Brooks-Gunn, J., Murray, L. & Foster, W. (1998). Promoting Healthy Adolescents: Synthesis of Youth Development Program Evaluations. *Journal of Research on Adolescence*, 8 (4): 423-459; and James, D. W. with Sonia Jurich (1999). *MORE Things That DO Make a Difference for Youth.* Washington, DC: American Youth Policy Forum.